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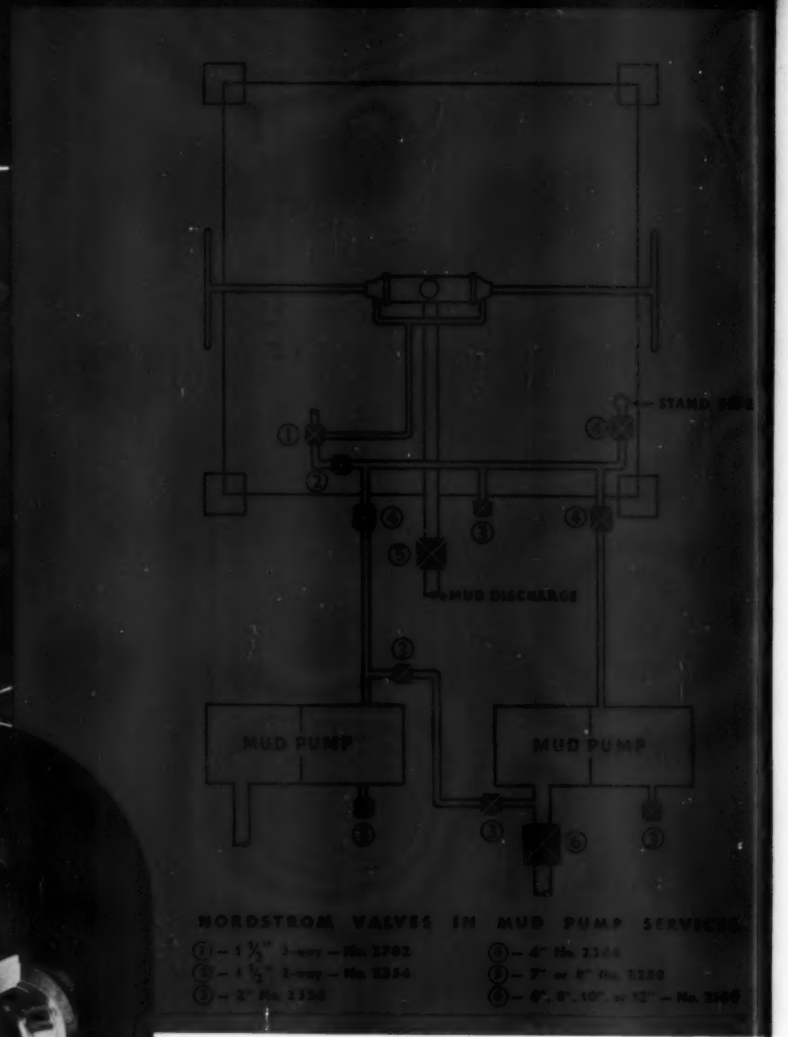

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Here are pictured very soft formation cores taken from Associated Oil Co.'s Mitchell No. 1 well, Coalinga, California.

Shown below are soft formation cores extracted by the Union Oil Company in their Weed Patch field.

This cut-out view of the Dean Core Drill shows the catcher dogs in position to support the core while coming out of hole.

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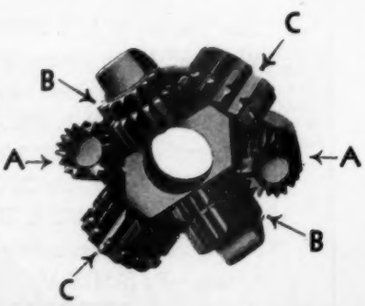


DEAN CORE DRILLS

East Texas Hot Oil Drops to Low Level

By JAMES McINTYRE

OVERPRODUCTION in the East Texas field was reported on Sunday to have dropped to a figure varying between 13,500 barrels and 16,500 barrels per day, the smallest volume of hot oil reported since an effort was first made to keep production down to demand at the posted price. This favorable sign and the undoubted strength of the crude situation generally has made oil producers more optimistic than they have been for years.

The Louisiana department of conservation puts a sprag in the wheel of progress by making allowable production in that state over 25,000 barrels a day in excess of the Bureau of Mines' estimated requirements from Louisiana and permitting wells in the Rodessa field to produce 500 barrels per day per well.

Important field developments in the past week included two eastern extensions to the Fitts pool and the completion of a better than 10,000-barrel well in the Jesse area, in Oklahoma; a 2,000-foot extension to the Dickinson field in Galveston County, Texas; the discovery of big wet gas production in a Glen Rose (upper Trinity) test in Lincoln Parish, North Louisiana; completion of unusually good wells in some of the Rocky Mountain pools; extension of five pools in Kansas and the growing importance of the Steckel pool in Barton and Rice Counties in that state. So busy are the operators in the Michigan field that new drilling permits last week exceeded the number of wells completed. Nine new wells in Michigan averaged 1,000 barrels per day in initial production and more than 46,000,000 feet of daily gas production was uncovered. A test in Upton County, Texas, was abandoned at 11,445 feet. It had found no production.

Production 2,836,808
Decrease 24,809

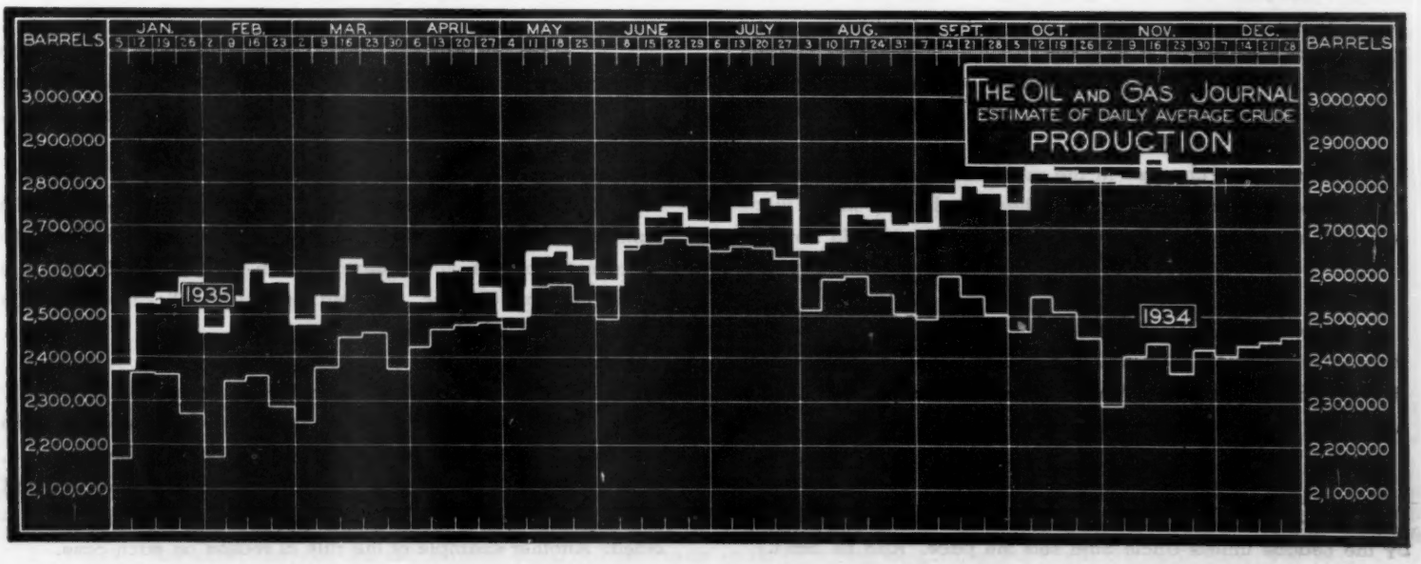
Daily Average Production for Week

	Nov. 30 1935	Nov. 23 1935	Dec. 1 1934
Oklahoma City	126,100	137,125	158,250
Seminole-St. Louis	92,000	93,975	75,650
Remainder of State	266,625	268,275	229,700
Total Oklahoma	484,725	499,375	463,600
East Texas	451,039	458,020	463,168
West Texas	157,633	156,528	132,379
North Central Texas	93,118	90,903	88,313
Texas Panhandle	67,116	63,073	59,763
East Central Texas	45,424	47,078	43,090
Gulf Coast—Texas	206,941	207,635	164,212
Southwest Texas	63,980	62,423	61,084
Total State of Texas	1,085,251	1,085,660	1,012,009
North Louisiana	34,000	33,840	24,015
Gulf Coast—Louisiana	126,871	126,476	83,843
Total Louisiana	160,871	160,316	107,858
Santa Fe Springs	54,250	53,900	35,600
Long Beach	76,750	78,000	53,000
Mountain View	38,150	38,500	12,400
Kettleman Hills	107,750	109,000	60,000
Remainder of State	387,100	394,600	290,500
Total California	664,000	674,000	451,500
Kansas	145,775	144,125	127,300
Arkansas	29,610	29,660	31,130
Eastern Fields	105,500	105,000	103,000
Michigan	49,656	50,111	26,885
Rocky Mountain area	111,420	113,370	97,090
Total United States	2,836,808	2,861,617	2,420,372

Crude Oil Stocks in U. S.

(BUREAU OF MINES ESTIMATES)

Week ending Nov. 23, 1935	298,777,000 bbls.
Week ending Nov. 16, 1935	299,169,000 bbls.
Week ending Nov. 24, 1934	326,323,000 bbls.



Sparks from the News

Effective enforcement in the East Texas field has cut overproduction to a new low of between 13,500 and 16,500 barrels daily. This is the answer of Texas to those who said state regulation of petroleum production was impractical and impossible.

The Society of Petroleum Geophysicists meeting at Dallas reported an impressive showing of discoveries and surveys under way throughout the oil producing states during the present year.

Total crude oil stocks dropped 392,000 barrels to 298,777,000 barrels, another step towards its economic level.

With California crude production 20,000 barrels daily below the recent peak the latest crisis on the West Coast seems to have been definitely passed.

Progress is reported in the negotiations on the marketing situation in California although the secondary outlets have been a difficult obstacle. The fact that discussion of a permanent code continues shows it is not thought insurmountable.

The American Petroleum Institute joined representative organizations of other industries in declining the invitation of Coordinator Berry to attend that NRA inquest. Conditions are now satisfactory, the Institute replied, adding it is opposed to any more federal regulatory legislation for the oil industry.

First carbon dioxide well ever drilled with rotary has been completed in the Walden field, Jackson County, Colorado. Location is 8,200 feet above sea level and bottom of hole is more than 3,000 feet above sea level, a really high structure.

That unfair estimate of average production costs is now being explained by Petroleum Administrative Board officials as premature. The complete report is to consider the case of stripper wells instead of a theoretical average well classification.

Announcing changes in the moribund Petroleum Administrative Board, Secretary Ickes admitted he did not know what will become of it when the appropriation runs out. No flowers.

New York opinion thinks Europe will not stop selling oil to Italy unless America stops too and, as this cannot be done under the present neutrality act, Mussolini can continue to order them to "fill 'er up"—so long as he has the price.

New York believes the oil sanction cannot be put through by the League unless Uncle Sam sets the pace. And he can't.

Senator Thomas, author of the Thomas bill, says "Unless the administration gets in behind a federal oil bill it will be hard to get one through." And, judging by the attitude of the administration in the last session, it has too much prior business.

Advances in gasoline prices on the Atlantic Coast bring wholesale and retail marketing schedules there more in line with manufacturing and distributing costs.

Kansas reports its highest potential, 838,688 barrels. Its fields could actually produce more oil now than it ever did.

Pithole is being placed back on the oil map with four repressuring plants and 16 strings of tools on three sides of the historic Pennsylvania site.

Congressman Disney, author of a federal control bill in the last House, admits "there is no use to propose new legislation. It would just be wasted time and paper." Right, this time.

James A. Moffett, vice president of the Standard Oil Company of California, on the eve of his departure for Europe, says the condition of the oil industry is, in his opinion, the best in years.

Secretary Ickes now announces that he has no authority to call upon the oil industry to shut off oil from Italy. Unnecessary announcement, since everybody knew it all the time.

New producing areas and new wells at Rodessa encouraged Louisiana to raise its allowable 10,000 barrels to 157,675 barrels daily during December. The Bureau of Mines estimate for the state was only 128,000 barrels daily.

Discussion of discriminatory and oppressive taxes on the oil industry by the Mid-Continent Oil and Gas Association meeting in Dallas is timely in view of the threats of higher taxation.

"Preposterous piece of propaganda," Walter Teagle calls rumor from Rome that Mussolini has given Jersey subsidiary 30-year monopoly on oil for Italy in return for $300,000,000 credit to Italo-American Oil, Inc. Ethiopia sprung the Rickett concession rumor; now it is Italy's turn.

That Texas supreme court decision which is causing so much legal brow-wrinkling seems plain enough to the lay mind. It is the duty of the railroad commission to make the rules and of the court to pass on their application, as in the case just decided. Another example of the rule of reason on each case.

Oil Industry Showing Marked Progress Statistically But Job Only Half Done

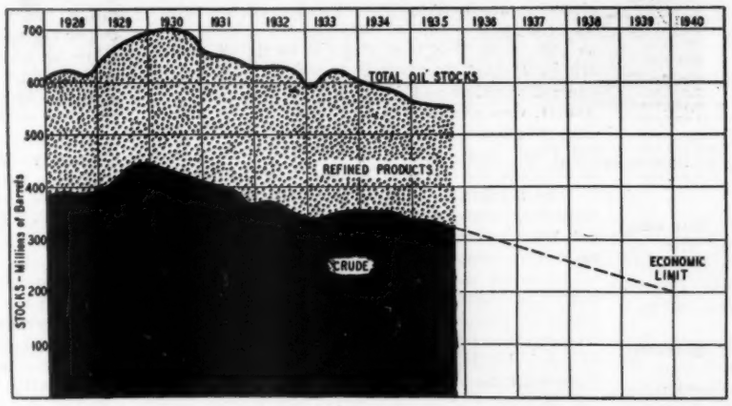
By W. T. ZIEGENHAIN

The oil business has never been in a healthier condition statistically than at present. It might have felt better about itself at other times and it might have "looked" better to others but it was never stronger basically. It took a flood of cheap oil from East Texas on top of a world-wide business collapse to eliminate certain uneconomic practices within the industry, but during that period oil stocks were reduced 148,000,000 bbls., markets were maintained and operating costs drastically and permanently lowered. Probably the one lesson emphasized in the industry's statistics over the period is that the supply of oil must be balanced with the demand and any attempt to apply bootstrap economics is an invitation for government control and higher taxes. Keeping an adequate reserve below ground has proved a wiser course than to hold it above ground.

A close study of statistics will also show that no one factor may be taken as an indication of the industry's welfare and it is dangerous to take any simple combination of them.

At the present time oil is being supplied at the rate of about 2,950,000 bbls. a day and the demand approximates 3,156,000 bbls. Based on current demand figures, many students of the industry anticipate an increase in demand for 1936 as compared with 1935 in the neighborhood of 5 per cent. This will enable the further reduction of uneconomic stocks.

To emphasize the magnitude of this job of reducing oil stocks during the trying days of the past it seems fair to point out that as recently as May, 1930, the industry carried 700,808,000 bbls. of oil in its tanks and today can show but about 552,000,000 bbls. When this peak was reached, however, 36 gravity Mid-Continent oil was selling at $1.29 a barrel and today it is selling at $1. In May, 1930, the oil business "felt good" for it had just got through shaking hands with itself over a 9-cent advance posted in April, while now it seems to be afraid of the shadow of its former self despite the fact we needed 168,000 bbls. more oil today than we did in August, 1930. Such inconsistencies are numerous and reveal the past zeal of one or another branch of the oil business to push its operations at a faster pace than could be maintained in others. As a result a confused picture is presented if one follows too closely the trend of one branch of the industry. Figures showing gasoline stocks, crude stocks, crude production, imports, exports, etc., are but straws in the wind. If any one of these held the key to the situation, it would not be difficult to focus attention upon that one operation and effect quick changes.



The tentative economic limit of crude oil stocks has been established by the industry as 200,000,000 bbls. At the current rate at which stocks are being reduced, this limit will be realized by 1940. Total oil stocks have been reduced 148,000,000 bbls. since the peak of 1930

The trend of gasoline stocks is influenced by seasonal differences in consumption but one inclined to place a great deal of stress in these figures alone should realize that there is enough refining capacity in the United States at present to take care of the normal demand at any time in the year. Stocks are not built up to meet a seasonal demand in summer, but because it is more economical to operate equipment and maintain a constant force of men throughout the year than to permit these to fluctuate greatly. Any stocks built up in excess of meeting this requirement may be considered excessive and for that reason, the industry has come to recognize an "economic limit" of stocks.

This has been tentatively set at 66,500,000 bbls. for April 1 of next year and at the present time these stocks approximate 51,000,000 or the industry plans to store 15,500,000 bbls. over the next four months. There should come no alarm therefore if gasoline stocks show approximately this rate of increase over the winter.

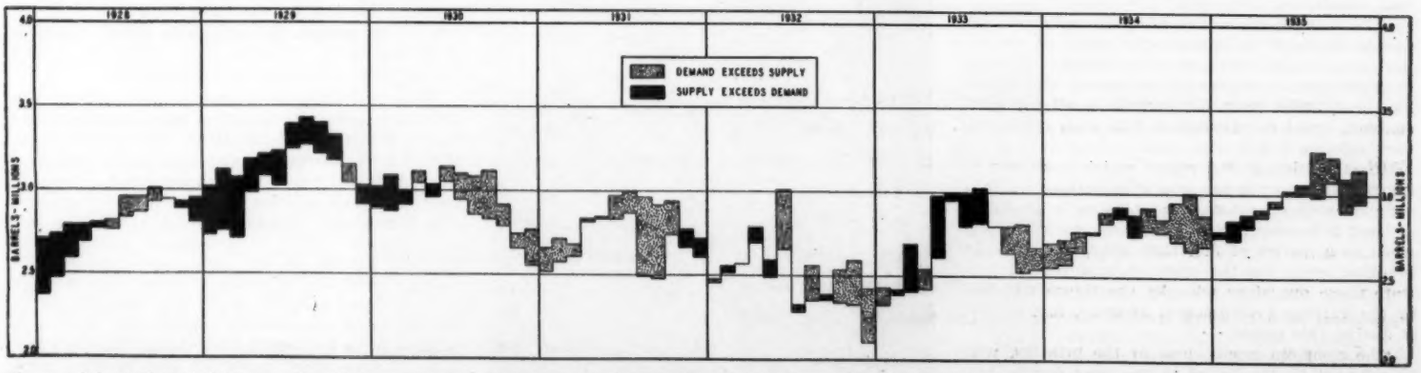
Crude stocks are often referred to as an index of the oil industry's welfare. This may be disproved without difficulty. At the present time total crude oil stocks including oil on leases approximate 318,000,000 bbls. or 227,000,000 bbls. less than they were at their peak in October, 1929. In October of 1929, however, 36 gravity oil was selling at $1.45, while today, with only 59 per cent that much crude in storage, the same crude sells for $1.

Crude oil stocks reached a peak seven months before a peak was reached in the stocks of "all oils" and a year and nine months passed before 36 gravity Mid-Continent crude hit bottom at 18 cents a barrel.

The rate at which crude is being produced in the United States is probably as convenient and forceful an index of the situation as is provided currently. Obviously it tells but one-half of the story, the quantity available for consumption. The highest rate at which crude oil has been produced in the United States was reached in the week of May 20, 1933, during which an average of 2,929,000 bbls. of crude were brought to the surface daily. This, of course, reflected the abnormal conditions in East Texas where a combination of greed and waste dictated policies for opening up that field that could not have been long maintained. Despite these conditions the price on 36 gravity crude remained at 25 cents a barrel or 7 cents a barrel above the low reached in July, 1931, when the daily average production was about a half million barrels less.

The United States has consistently exported

New All-Time Peak in Oil Demand Likely to Be Reached Late in 1936



A careful study of this graph will reveal many facts. It reflects the balancing of supply and demand of all oils in the United States, the supply being made up of the current production of crude oil plus imports of crude and refined products. Demand reflects the total of domestic consumption of all oils plus exports. The shaded area reflects withdrawals from total oil stocks while the black area depicts additions to storage. The substantial improvement in stocks may be accounted for by the rather consistent withdrawals since early in 1930. The exception was the uncontrolled flood of East Texas crude oil which was witnessed in the first eight months of 1933.

more oil than it has imported. At the present time we are receiving into this country a little more than one-third the quantity exported. The bulk of the oil imported is in the form of crude petroleum while the bulk of the exports is in the form of refined products. Both imports and exports were greatly affected by the imposition of import duties on foreign crude several years ago, the net result of which has been to encourage the building of modern foreign refineries and the introduction of serious competition for world markets.

For some time the quantity of oil imported has approximated 160,000 bbls. a day, about 100,000 bbls. of which is crude and 60,000 bbls. refined oils. We have been exporting at a rate of about 400,000 bbls. of oil daily, of which 170,000 bbls. is crude oil and 230,000 bbls. refined products. A more elaborate table follows—but the comparison clearly indicates that the quantities involved are relatively small and the potential unbalancing of our crude supply through imports is of less concern than the opening up of 100 out of 18,000 wells in the East Texas field.

IMPORTS

	Crude	Refined oils
1934	35,558,000	14,936,000
1933	31,893,000	13,501,000
1932	44,682,000	39,812,000
1931	47,250,000	38,837,000
1930	62,129,000	43,489,000
1929	78,933,000	29,777,000
1928	79,767,000	11,790,000

EXPORTS

	Crude	Refined oils
1934	41,127,000	73,380,000
1933	36,584,000	70,143,000
1932	27,393,000	75,882,000
1931	25,535,000	98,859,000
1930	23,705,000	132,794,000
1929	26,401,000	136,719,000
1928	18,966,000	125,483,000

From all these data it is apparent that only through a combination of "straws in the wind" is it possible to judge the direction in which the oil business is moving and in addition, the figures must be reviewed in the light of current general economic conditions.

Obviously the oil industry cannot act independently of other industries. These data also seem to indicate that a program of voluntarily regulating production and stocks will be carried on by the industry as it saw fit to start three years before any approach to government regulation was undertaken. As a part of this program the industry will rid itself of burdensome crude stocks and gasoline stocks above ground and will discourage "quick profit" outside capital from coming into the oil business by making it necessary to limit production from new fields.

Crude Production Cost Figures Now Admitted Misleading

WASHINGTON, D. C., Dec. 2—Criticism now of the Petroleum Administrative Board's preliminary statement on the cost of producing crude oil is uncalled for, officials state, due to the fact that the complete report will carefully segregate both the flush production operations and the stripper well conditions.

The preliminary statement, it is explained, was merely designed to indicate the trend of the report, and not to be taken as a criterion of what is in the completed text of the survey. The survey has been under way for several months and its contents could not be included in such a preliminary release, it has been said.

That portion of the report which has come in for particular criticism was that intimating that stripper well operators were making a profit of at least 20.9 cents per barrel during the year 1934, when as a matter of fact they were, at best, only breaking even. On the other side of this picture were those operators who, by the figure adduced by the various governmental agencies, lost severely during this period.

The complete report, now at the printers, will be released by the board in the near future, but in the meantime, the board is being flooded with objections to the report, practically all based on the conjecture which has been widely published that the oil industry is making that amount of money on each barrel of crude.

California Reports Progress Towards Stabilizing Output and Market

LOS ANGELES, Calif., Dec. 2.—Stabilization may be reached in part if concerted attempts of the California oil industry meet with success. The problem is being met from all angles, producing, marketing and refining, and considerable progress has been made in harmonizing the various factions. Representatives of large and small producers and marketers have been in session in either Los Angeles or San Francisco for two weeks endeavoring to work out a program that will meet with universal approval and considerable progress has been made.

It is not the present intention to work out a complete program but this angle will receive careful attention later this year or early in 1936 when final details have been worked out in such shape that a constructive and progressive program can be submitted to the Federal Trade Commission for approval. The outlook is exceptionally bright and those in close touch with the situation are extremely sanguine over the future as producers, refiners and marketers have come to the realization that the California oil industry is headed for better times if all interests can get together and forget past differences. C. E. Arnott, vice president of marketing for the American Petroleum Institute, and of Socony Vacuum Oil Corp., has done a lot of constructive work in bringing the various factions into harmony.

The marketing angle, due to the existence of secondary outlets, has been a tough hurdle to get over as those companies having subsidiary marketing companies have been very reluctant to clamp down on their secondary outlets. The situation is complicated because the controlling interest in Gilmore Oil Co. is held by General Petroleum and Associated Oil Co. holds the majority of stock in the Seaside Oil Co. Neither General Petroleum nor Associated Oil Co. has dictated the policies of the secondary outlets but these companies have been meeting competition from a price standpoint and this places those companies that do not have secondary outlets in a disadvantageous position. The Richfield and Rocket Oil Co. deal has been approved by the Superior Court upon recommendation of W. C. McDuffie, receiver in equity for Richfield Oil Co., and nothing can be done along this line unless the receiver recognizes the advantages of stabilizing prices. Associated, General Petroleum and Richfield have indicated they will go along with any constructive program that can be worked out. General Petroleum and Standard Oil Co. through ownership or affiliation with Gilmore Oil Co. and Signal Oil Co. are anxious to stabilize refined prices and will approve any plan that is workable. Independent refiners have almost invariably been charged with upsetting the apple cart in California by cutting prices but one must not be mislead by apparent indications. It is always very difficult to trace down the real source of price cutting in the retail market and while independent marketers may have been guilty of some infractions there is no getting around the fact that the secondary outlets of certain major companies have caused either directly or indirectly the price reductions in crude and refined oils in California during the past 60 days.

◆ ◆ ◆

E. L. Shea, president, and J. A. Collins, Tide Water Oil Company

Tentative New Code

The new code tentatively approved by major marketers and many of the independent refiners provides that all grades of gasoline of like quality shall be marketed at similar prices. This stipulation means that secondary outlets of certain major companies must post and market their gasoline at the price posted by their parent companies. This is very important because it will give the little refiner a definite market for his gasoline as long as he stays in line. The new plan provides the independent marketer will be allowed to market his gasoline from 1 to 1½ cents per gallon below the posted price of major companies. This is the only hitch in the new program as some of the secondary outlets maintain they should be allowed to meet this competition. Union, Shell and Texas Co. demand that secondary outlets must meet standardized quotations and the outlook at present seems to indicate major marketers having secondary outlets will be obliged to capitulate. Marketing conditions on the Pacific Coast, while considerably different from the situation existing in other sections of the country, are really fundamentally the same.

The crude oil production situation will come in for consideration as a part of the stabilization program but it may be several weeks before it becomes operative as the projected reduction in crude production has been predicated on the assumption mutual cooperative curtailment is entirely feasible.

Natural Gas Waste

Petition of the State for a temporary restraining order enjoining operators in the Mountain View field from wasting natural gas pending hearing on a permanent injunction got under way in Bakersfield December 2. If granted, the injunction will have the effect of reducing crude production as representatives of the State will make an effort to establish a normal gas-oil ratio and seek to force all wells to conform with this ratio as closely as possible. Field men are of the opinion this attempt to enforce the California gas conservation law at Mountain View has come too late to accomplish the maximum benefits from a field standpoint although they recognize it will remove some of the inequities that exist.

State officials have decided to sidetrack the attempt to reinstate litigation involving gas waste in the Kettleman North Dome field and will institute new proceedings along the same line. The State Supreme Court has not rendered a decision on the State's petition to reinstate the original suit taken off calendar several years ago but in ruling on a writ of prohibition petitioned by Superior Oil Co. in the same case intimated its decision would be unfavorable if the State pressed for action. As a result, plans are being rushed to institute new proceedings which will contain a petition for a temporary restraining order to eliminate unreasonable waste of gas pending trial of the case. Action involving the Kettleman North Dome field will be filed in the Superior Court at Hanford within 15 days provided no delay is encountered in similar action involving the Mountain View field.

Carbon Dioxide Gas Well Successfully Completed in Colorado With Rotary

By L. G. E. BIGNELL

It is stated in the "Geology of Natural Gas," published by the American Association of Petroleum Geologists, "natural gases from wells containing noteworthy amounts of carbon dioxide generally occur only in a few western states." Several areas in Colorado are cited and in the Walden field, Jackson County, northern Colorado, several wells have been in for some time and another well was completed last week. The first wells were drilled with cable tools but the last well, Continental Oil Co. No. 3 Hoye, NW NW NE section 34-9n-78, was drilled with rotary.

Continental Oil Co. No. 3 Hoye, in Walden field, Jackson County, recently completed with rotary tools as carbon dioxide gas well

Drilling with rotary was quite a departure in this field and many things happened out of the ordinary. The formations dip as much as 42 degrees from the vertical and it was found straight hole could not be drilled with 11¾-inch bit on 6⅝-inch drill stem but it was possible to drill straight 9-inch hole and this was done and the hole later reamed to 11¾-inch for the string of 9⅝-inch casing set at 5,068 feet.

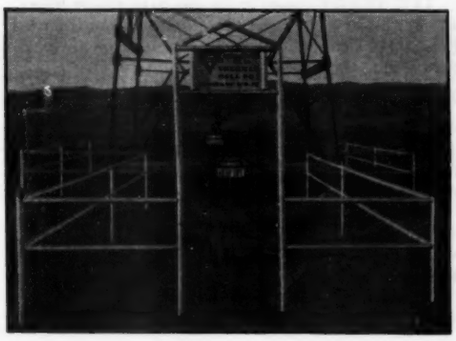
In drilling this hole it was kept filled with heavy mud and the weight of this column of fluid exerted a pressure higher than formation pressure so it was possible to drill through 91 feet of saturated Dakota sand from 4,977 feet to 5,068 feet where the 9⅝-inch casing was set.

After landing the casing the hole was deepened and passed through 7 feet of barren formation, then penetrated 20 feet of Lakota sand which was hard but slightly saturated, then another break and finished in a dry Lakota section. As the bottom section of this hole did not encounter oil or gas in commercial quantities it was plugged back with cement to the base of the Dakota where the string of 9⅝-inch casing had been set and this casing has been shot with a gun perforator and the well came in making 3,500,000 feet of carbon dioxide gas and 65 bbls. of 56 gravity oil daily, well head pressure about 850 pounds per square inch.

To prevent this carbon dioxide gas from suddenly expanding and freezing the mud and pump pressure was maintained in the well at all times through the use of regular and rotating type blow-out preventors and casinghead with side connections. The mud was permitted to escape from the well through the side connections on the casinghead and pressure controlled by the use of flow beans on these discharge lines. By this means any pressure desired could be held on the well and the gas did not have opportunity to escape from the formation.

Before the hole was plugged back to the base of the Dakota a string of tubing was run to test the Lakota formation and while the Lakota showed some carbon dioxide gas and very light oil it was not enough to make a commercial well.

After perforating the 91 feet of 9⅝-inch casing from 4,977 to 5,068 feet, crude oil was pumped into the hole to displace the mud and at the same time to exert sufficient pressure upon the carbon dioxide, assumed to be in the liquid phase at formation pressure and temperature, to permit it to be flowed to the pit before expansion took place.



Continental Oil Co. No. 1 Sherman well, Jackson County, Colorado, producing carbon dioxide gas and light oil

When the crude oil displaced the drilling mud the pressure on the casing was gradually lowered to permit the carbon dioxide gas to force the oil out of the casing without sudden expansion and freezing of the oil in the casing.

Enclosed steam coils used in heating carbon dioxide gas as it is permitted to expand from well to atmospheric pressure at Continental Oil Co. No. 1 Sherman well, Walden field, Colorado

In connection with the completion of this new gas well the following facts taken from an article by Henry A. Ley in "Geology of Natural Gas" may prove of general interest.

The carbon dioxide gas produced from Continental Oil Co. No. 1 Sherman well in section 12-9n-79w, in the Walden field, Jackson County, Colorado, has been analyzed by the U. S. Bureau of Mines and reported as follows:

Methane 0.52, ethane 3.95, carbon dioxide 92.14, oxygen 0.09, nitrogen 3.16 and helium 0.14. The gas is produced from the Dakota formation of upper Cretaceous age and is one of the richest gases in carbon dioxide found in this country.

Carbon dioxide is utilized by manufacturers of liquid carbonic acid, fire extinguishers, fumigating agents, refrigerants, and baking soda. Until 1926, it was obtained chiefly from the flue gases of coke ovens, lime kilns, metallurgical plants, and chemical factories. Since 1926 increasing amounts of carbon dioxide in liquid and solid form have been produced by pyrolysis methods, burning natural gases.

Plants of the first source of production are immobile and have geographic limitations, but they remain important competitive production sources wherever located.

The second source of supply, pyrolysis of natural gases, is mobile, and plants may be constructed at any point where natural gas is available. With nationwide distribution of natural gas in the United States, pyrolysis plants using natural gas may be located in most of the large consuming markets. Solidified carbon dioxide is 1.5 times more efficient than water ice and requires less space and attention.

The most recent development of the pyrolysis method of producing carbon dioxide is the use of natural gas as described in an article by W. T. Ziegenhain in The Oil and Gas Journal of September 17, 1931, pp. 14 and 98 under the title "Carbonic Products Makes Refrigerant from Natural Gas." The natural hydrocarbon gas is burned in a manner to obtain the maximum amount of carbon dioxide gas. The combustion gases are subsequently cooled and washed to remove impurities, and then passed through liquid solvents to form an unstable compound. This compound is charged to stills where the carbon dioxide is liberated as a gas, then withdrawn and liquefied in compressors from which the liquefied gas is conveyed to nozzles and discharged into "snow" chambers. The "snow" is gathered mechanically and compressed within the "snow" chamber into blocks (usually 50 pounds in weight) ready for use.

There were 25 pyrolysis plants in the United States in 1931 producing carbon dioxide ice from natural gas at the rate of 105,000,000 pounds a year, whereas in 1925, only 250,000 pounds of carbon dioxide ice were produced by this method.

Natural gas carbon dioxide plants' capacity in 1932 was 600 tons daily.

Group of Society of Petroleum Geophysicists at midyear meeting in Dallas, Tex.

Several Changes in the P.A.B. Are Announced by Ickes

WASHINGTON, D. C., Dec. 3.—Following an intensive investigation by Louis Glavis, chief of the interior department's investigation division, Secretary Ickes today announced several changes in the personnel of the Petroleum Administrative Board, the Federal Tender Board and the Federal Petroleum Agency in East Texas.

Norman Meyers, member of the Petroleum Administrative Board, has resigned to accept an appointment with the Securities and Exchange Commission, Mr. Ickes said, while George W. Holland, for over 20 years with the U. S. Geological Survey, has been appointed chairman of the board to replace Charles Fahy, who resigned some time ago.

The Federal Tender Board's personnel was changed by the resignation of John Davis, a member, who was replaced by G. W. VanFleet, former director of the Federal Petroleum Agency. Mr. Davis has returned to duty with the Petroleum Administrative Board.

It was also announced that the investigative work formerly done by the petroleum agency will now be taken over by Louis Glavis' division of investigations.

When asked what the future of the Petroleum Administrative Board would be after the expiration of the present NRA setup, Mr. Ickes replied that he did not know what would become of the board.

It is understood he plans to renew his demand upon congress for oil legislation when congress convenes in January.

OBITUARY

CHARLES MILLARD PRATT, 80, former director and officer of the Standard Oil Co., and former president of Pratt Institute, died at his home on Long Island, New York. He was the eldest son of the late Charles Pratt, founder of Pratt Institute and a co-founder of the Standard Oil Co., who died in 1891.

PAUL A. ENLOWS, 72, a veteran oil operator in the Blackwell district of Kay County, and a resident of Oklahoma since 1915, died in Tulsa.

DANIEL E. JONES, 79, oil operator and manufacturer in the Pennsylvania and Ohio fields, died in his home in Maumee last week. He was born in Collinsville, N. Y. As a boy he went to the first fields around Oil City, and Titusville, Pa. He moved into Ohio when the first wells in Allen County led to a boom. With his brother, Samuel M. Jones, who later became mayor of Toledo, he opened a machine shop in Lima. About 45 years ago they transferred their activities to Toledo and formed the Acme Sucker Rod Co., later the S. M. Jones Co. He was interested in the Findlay and Robinson, Illinois, fields.

COL. J. B. SHOENFELT, former Oklahoma oil operator and United States Indian Agent at Muskogee in the early days, died in Hollywood, Calif.

LEE TERRY, brother of the late Lloyd Terry, of Manning & Terry, Inc., drilling contractors, Tulsa and Denver, was fatally injured near Laramie, Wyo., last week.

EDWIN WILBUR RICE, JR., 73, honorary chairman of the board of directors of the General Electric Co., died in his home in Schenectady, N. Y., November 25, after a long illness. He was a pioneer in electrical development.

WILLIAM EDWIN THOMPSON, 68 years old, employe of the Gulf Pipe Line Co. from 1907 until his retirement two years ago, died Sunday at his home in Tulsa. He was the oldest employe of the Gulf in Oklahoma in length of service.

Crude Stocks

WASHINGTON, D. C., Dec. 3.—The Bureau of Mines reports stocks of domestic and foreign crude oil at the close of the week ended November 23 totaled 298,777,000 bbls., a decrease of 392,000 bbls. from the previous week, a drop of 565,000 bbls. in domestic crude and an increase of 173,000 bbls. in foreign crude.

STOCKS OF CRUDE PETROLEUM, NOVEMBER 16 AND 23, 1935

(Barrels of 42 gallons)

Grade of crude oil—	Nov. 16	Nov. 23
Pennsylvania Grade	4,709,000	4,632,000
Other Appalachian	849,000	839,000
Lima-N.E. Ind.-Mich.	1,376,000	1,305,000
Illinois-S.W. Indiana	11,175,000	11,126,000
N. Louisiana and Ark.	10,690,000	10,562,000
W. Texas and S.E. N. Mex.	29,212,000	28,890,000
East Texas	21,371,000	21,222,000
Other Mid-Continent	132,290,000	132,333,000
Gulf Coast	25,843,000	25,386,000
Rocky Mountain	26,794,000	26,718,000
California	32,003,000	32,734,000
Domestic crude	296,312,000	295,747,000
Foreign crude	2,857,000	3,030,000
Total crude*	299,169,000	298,777,000

*Represents approximately 98 per cent of total stocks in the United States, exclusive of lease (producers') stocks.

Fitts Pool Has Been Extended About a Mile Eastward

The Fitts pool in Pontotoc County, Oklahoma, was extended about a mile eastward when J. E. Crosbie, Inc. No. 1-A Burris, NE cor. SE NW section 27-2-7, penetrated Bromide and McLish sands and produced 850 bbls. in one hour through casing and later 49 bbls. in 15 minutes through tubing. It had Bromide at 4,045 feet, total depth 4,260 feet.

Skelly Oil Co. No. 1 Park College, SW cor. NE section 28-2-7, flowed 1,823 bbls. of oil in 2 hours and 30 minutes through casing and then 186 bbls. in one hour through tubing. It is a McLish and Bromide producer, total depth 4,275 feet.

Rapp Drilling Co. and others extended the Edmond pool in Oklahoma County one location west in No. 1 Price A, SE SW NW section 30-14-3w. It flowed 1,008 bbls. of oil and 200 bbls. of water in four and one-half hours from first Wilcox sand at 6,645-60 feet.

Carter Oil Co. No. 1 Thompson in section 34-2-9, Coal County, Oklahoma, was drilling in Bromide at 6,358 feet.

Control Bill Authors Talk

WASHINGTON, D. C., Dec. 2.—Word that oil industry is in better shape was brought to Washington by Representative Disney (D., Okla.).

"There is no use to propose new legislation," Disney said, "until the industry wakes up to the need of it. It would just be wasted time and paper. I haven't heard of any proposed legislation and doubt if any will be proposed."

Senator Elmer Thomas (D., Okla.), said: "There will be agitation for oil legislation, but it all depends on the administration. We were promised it two years ago and the secretary of the interior wrote it, but it was not on the 'must' program. It was up again last session, but we had to stop at approval of state compacts. Unless the administration gets in behind a bill it will be hard to get one through."

Disney said the oil compact was "working very well, but there is still great need for government regulation."

"The oil industry is in better shape generally than it has been," Disney said.

Decline NRA Invitation

NEW YORK, Dec. 2.—The American Petroleum Institute, the Chemical Alliance and the Manufacturing Chemists Association announced they will not attend the industry-labor conference called by Maj. George L. Berry, coordinator for industrial cooperation, in Washington December 9.

The Petroleum Institute asserted conditions are satisfactory in its industry and that it likewise is opposed to any more national regulatory legislation.

Believed Oil Sanction Plan Will Not Be Put Through at League Meeting

By C. O. WILLSON

Oil exporting companies are watching closely day to day developments in Europe and this country which indicate the next 10 days will definitely determine whether Italy will be able to purchase petroleum products from her accustomed sources. Oil companies, in this country at least, will welcome action that will end the confusion and bring an end to the popular belief they are in any way responsible for continuance of the war in Africa.

Meanwhile, it is becoming more apparent Washington will have to place an official embargo on oil shipments to Italy if it wishes to stop the movement 100 per cent. It is known tanker and smaller boat shipments of petroleum products left this country for Italy during the past week. These shipments were either on orders placed over the past few weeks or represented routine business between major companies and their subsidiary or affiliated units operating in Italy. Part of the material was for delivery in the war area. This continued business is not motivated by the desire for "war profits" or "blood money" but reflects the fact the shippers do not see how they can legally refuse to make the shipments in the absence of any official ban. Those companies which are holding up shipments or have shifted business to operating units outside this country do not feel they can continue this policy indefinitely in view of continued shipments from other sources in the United States and in countries which are members of the League of Nations.

Depends on United States

Reports from Europe indicate the action to be taken by the committee of the League of Nations on December 12 in regard to the inclusion of oil under the sanctions will depend on the position of the United States at that time. It is said that while all countries favor the inclusion of oil, Rumania and U.S.S.R., which normally have the bulk of the Italian business, have indicated they will not vote for it unless the ban is supported by all non-league nations. With this situation in mind, many here feel the plan to include oil will have to be dropped at the December 12 meeting. It has been indicated in Washington the administration will not place an embargo on oil shipments, either because it does not feel it has the legal authority under the neutrality act or for other reasons which have to do with the establishment of precedent and the knowledge such action will jeopardize the peace-time operating position of American oil and other interests in Italy.

It has been contended by some that under the neutral policy of this country a differentiation should be made between oil products to be used for war purposes, including all shipments to the war area, and those which go to supply the domestic requirements in Italy. It has been indicated this view has official support in Washington. Others point to the practical difficulties of carrying out such a policy. With the exception of fuels and oils consumed by airplanes, the products used for war and domestic purposes have the same general specifications. Shipments delivered at Italian ports can easily be reconsigned to East Africa. When unusual specifications are required for war use the products could be re-refined at Italian plants and shipped to Eritrea and Italian Somaliland. It is also pointed out the domestic consumption in Italy of petroleum products has been reduced to a minimum through the imposition of high taxes and other means and the bulk of deliveries in Italy are being used as fuel by plants engaged in the manufacture of war materials and in the transportation of materials and of troops.

In an attempt to answer the frequently asked question what the Italian oil market amounts to and who supplies it two tables have been prepared based on data obtained for the most part from the reports of the Bureau of Foreign and Domestic Commerce of the U. S. Department of Commerce.

Preposterous Propaganda, Says Teagle on Rome Rumor

NEW YORK, Dec. 4.—President Walter C. Teagle of the Standard Oil Co. (New Jersey) denounced as "a piece of preposterous propaganda" a rumor from Rome that a subsidiary had received from Premier Mussolini a 30-year monopoly to furnish all Italian requirements for oil, in return for a $300,000,000 credit. W. F. Hawkins of Genoa was represented as the negotiator for Italo-American Oil, Inc.

The first table shows the imports into Italy for the first eight months of 1935 and 1934 (in barrels):

	1935	1934
Crude petroleum	1,099,000	691,000
Daily average	4,530	2,860
Gasoline	2,148,000	1,778,000
Daily average	8,840	7,330
Kerosene	728,000	648,000
Daily average	3,000	2,670
Fuel oil	5,255,000	4,831,000
Daily average	21,630	19,900
Total	9,230,000	7,948,000
Daily average	38,000	32,760
Lubricating oil	357,000	305,000

The second table shows the countries which furnished these oil supplies to Italy for the first eight months of 1935 (in barrels):

	Total imports	% of total
Rumania	4,194,000	45.4
Daily average	17,260	
Iran (Persia)	1,373,000	14 8
Daily average	5,650	
U.S.S.R.	1,331,000	14.4
Daily average	5,480	
Netherland West Indies	1,068,000	11.5
Daily average	4,400	
United States	589,000	6.5
Daily average	2,420	
Colombia	294,000	3 2
Daily average	1,210	
Iraq	238,000	2.5
Daily average	970	
Others	143,000	1 6
Daily average	610	
Total*	9,230,000	

*Does not include lubricating oils.

During the past month there have been reports from Washington giving partial information on oil exports from this country to Italy during September and October. These reports indicate exports increased materially in October possibly averaging 15,000 bbls. daily. It is assumed this gain indicated not only increased war demand but also that purchases from some other countries had been curtailed. Italy has given a large part of its oil business to Rumania, due to a desire to promote trade between the two countries and improve a bad balance of trade situation coupled with close relationship as to ownership and management between some of the Italian and Rumanian companies.

Matter of Credit

The trading between the two countries earlier in the year involved an extension of credit by Rumania to Italy on the part of the oil purchased. This arrangement apparently failed to work out as expected and some time ago it was announced the Association of Rumanian Petroleum Industrialists had adopted a policy of accepting only gold payments on oil shipments. This resulted in additional business being placed in this country and less in Rumania. So far as known the total oil purchases of Italy have not increased despite many reports to the contrary. Making cash payments for oil probably is of more concern to Italy at this time than the threat of embargoes. The spot purchases made in this country and those for delivery over the next few weeks were on a cash basis which means gold payments to a large extent.

The imports from Iran (Persia) shown in Table 2 came directly or indirectly from Anglo-Iranian Oil Co., Ltd., the British company in which the government has a 50 per cent interest. The company holds the Iran concession from which the country's crude is obtained. It also operates a large refinery at Abadan in Iran.

American Exports

The Netherlands West Indies deliveries represent shipments from the Standard and Royal Dutch-Shell refineries. The exports from the United States come from several sources with brokerage operations accounting for a large part of the recent spot business.

The United States accounted for 231,000 bbls. of the 357,000 bbls. of lubricating oil imports into Italy the first eight months of this year. At least two companies in this country confine their sales to Italy to lubricating oils. In addition, Italy imported 42,392,000 pounds of paraffin wax and petrolatum the first eight months of this year and of this total 26,425,000 pounds came from the United States. The imports of benzol, toluol and xylol the first eight months totaled 70,000 bbls.

Sues for Injunction

Philip Giordano, employe of an Italian paper in New York, Tuesday filed suit against the National Munitions Control Board, composed of Cordell Hull, secretary of state and four cabinet members to restrain the board from restricting exports of oil and other materials to Italy. Federal Judge Goddard set Decemer 10 for a hearing on an injunction.

Texas Allowable

AUSTIN, Tex., Dec. 2.—The railroad commission's December Texas oil proration order fixed daily allowable at 1,060,431 bbls., a reduction of 10,000 bbls. from daily production November 15. The Bureau of Mines estimate for Texas in December was 1,005,800 bbls. daily.

The East Texas field was left at 433,000 bbls. daily. The commission retained the East Texas production basis of 2.8 per cent of the hourly flow of each well. Cayuga and Van were given a 1,000-bbl. daily increase, making their totals 4,720 and 36,733 bbls., respectively. With an increase of 600 bbls. for Anahuac these were the principal increases while Church and Fields was out 1,830 bbls. and Howard-Glasscock reduced 1,000 bbls.

Texas Supreme Court Opinion Likely to Bring Test of Commission's Rules

By NEIL WILLIAMS

HOUSTON, Tex., Dec. 2.—Action of the state Supreme Court in denying a rehearing in the case of C. H. Brown and others versus Humble Oil & Refining Co., which makes final disposition of the case, has focused attention of the oil industry of Texas on a study of the significance of the decision.

The case itself dealt with the question of the validity of "Rule 37," providing for regulation of well spacing, and involved a suit originally filed by Humble Oil & Refining Co. in Travis County to set aside an order of the Railroad Commission granting C. H. Brown, one of the defendants, a permit to drill a well on a 1½-acre tract adjacent to one of the plaintiff's leases in Gregg County, East Texas. The permit was granted by the commission as an exception to the established spacing rules of the field on a tract which had been subdivided after adoption of the spacing rules.

The opinion by the court in its original decision, which had been supported by refusal to rehear the case, definitely upheld the validity of Rule 37, and the authority of the Railroad Commission to regulate spacing of wells.

The opinion stated:

"Exercise of police power under the rule does not change the rule of property. It merely regulates and controls the way in which the property shall be used and enjoyed. Each person still owns the oil and gas in place and each still has the right of possession, use, enjoyment and ownership of the oil and gas produced through the well on his land regardless of origin."

Of particular interest in connection with the discussion on property rights was an inference that if due protection is to be given ownership of oil and gas in place some provision must be made in allowables for the proportionate production of oil according to acreage. In view of the fact that proration in East Texas is based entirely on potential without regard for acreage on which a well is located, this inference has created considerable question of the legal status of the present proration order. The court's attitude was expressed in a statement concerning exceptions to Rule 37, as follows:

"Conditions may arise where it would be proper, right and just to grant exceptions to the rule so as to permit wells to be drilled on smaller tracts than prescribed therein. Also conditions may arise where it would be proper, right and just to permit tracts to be subdivided and such subdivisions drilled after the adoption of the rule; but in all such instances it is the duty of the commission to adjust the allowable, based upon potential production, so as to give the owner of such smaller tracts only his just proportion of the oil and gas. By this method each person will be entitled to recover a quantity of oil and gas substantially equivalent in amount to the recoverable oil and gas under his land."

The opinion also explained that as the commission had the authority to regulate spacing wells it also had the power to limit the rate of flow of wells, which would enable the commission to authorize drilling on small tracts when occasion arose as specified in exceptions to Rule 37, but at the same time offset the advantage of small spacing by lower allowable in protection of larger property owners.

In the supplemental opinion handed down when the rehearing of the case was refused, the court pointed out that in such utterances it was not attempting to prescribe rules and standards by which to determine property rights, or standards to control the Railroad Commission in promulgating conservation rules and orders relating to oil and gas. Also these statements are not to be taken as a ruling that acreage must be used as the sole or controlling factor in determining how many oil and gas wells may be drilled on, or how much oil or gas may be taken from a tract of land, or that when a well is permitted to be drilled upon a small tract of land under exceptions to Rule 37, the allowable from such a well must always be adjusted so that the tract will be permitted to produce only a quantity of oil in proportion to its acreage.

The court in this connection emphasized that it was the Railroad Commission's duty to make rules relating to production of oil and gas and that the court would attempt only to prescribe that the actions of the commission be legal, reasonable and not arbitrary. It leaves an inference, however, that unless such consideration is given by the commission in formulation of orders, the orders may not stand up in court.

Railroad Commissioner Lon A. Smith expressed fear that this may force the commission to consider an acreage basis because of the court's original definition of what is fair and reasonable. It is regarded probable, in view of the court's decision, that the commission's existing orders, based on potential and ignoring acreage, will be tested in court.

Commission Alone Can Make Rules; Must Be Reasonable, Court Says

AUSTIN, Tex., Dec. 2.—The opinion of the state Supreme Court in the well spacing case follows:

"In the original opinion the following language was used:

"'It is now, however, recognized that when an oil field has been fairly tested and developed, experts can determine approximately the amount of oil and gas in place in a common pool, and can also equitably determine the amount of oil and gas recoverable by the owner of each tract of land under certain operating conditions.

"'Conditions may arise where it would be proper, right, and just to grant exceptions to the rule so as to permit wells to be drilled on smaller tracts than prescribed therein. Also, conditions may arise where it would be proper, right, and just to permit tracts to be subdivided and such subdivisions drilled after the adoption of the rule; but in all such instances it is the duty of the commission to adjust the allowable, based upon the potential production, so as to give to the owner of such smaller tract only his just proportion of the oil and gas. By this method each person will be entitled to recover a quantity of oil and gas substantially equivalent in amount to the recoverable oil and gas under his land.'

"It appears that the first quotation above and a part of the second have been constructed by some to mean that this court has undertaken to prescribe them as rules and standards by which to determine property rights and as standards to control the Railroad Commission in promulgating conservation rules and orders relating to oil and gas. Others have construed the language, or part of the language, above quoted from the opinion, to amount to a ruling that acreage must be used as the sole or controlling factor in determining how many oil and gas wells may be drilled on, or how much oil or gas may be taken from, a tract of land, or to hold in effect that whenever a well or wells are permitted to be drilled upon a small tract under the exception in Rule 37, the allowable from such wells must always be adjusted so that the tract will be permitted to produce only a quantity of oil measured by the proportion which its acreage bears to the acreage of tracts developed under the general provisions of the rule.

"These are erroneous constructions of the opinion. The language quoted was used, not for the purpose of prescribing rules or standards, but merely in a discussion of the validity and purpose of the rule and its exception, as showing that the rule and the exception with respect to vested rights are reasonable; and that, while it is 'impossible to measure the quantity of oil and gas beneath each tract of land,' or to 'give exact justice to all land owners,' the rule and the exception can be so administered as to prevent the invasion of property rights by fairly and reasonably, but of course not exactly, protecting each owner in the ownership of, and in the opportunity to save and produce, the oil and gas which according to the decisions in this state he has a right to take.

"We recognize that the railroad commission is authorized to make rules relating to the production of oil and gas. This court will not undertake to prescribe any rule or standard to guide the commission, except that its actions must be legal, reasonable, and not arbitrary. There are many factors, facts, and circumstances, which we shall not undertake to detail here, in each case and in each hearing, which must be considered, weighed, and given effect, in the fair and reasonable administration of such laws, rules, and exceptions. All questions of fact are primarily for the commission to determine.

"We held in the original opinion, and reiterate it here, that the legislature enacted certain laws which declare the public policy of the state with respect to the development and conservation of oil and gas, and placed the duty upon the Railroad Commission to carry out the details. The duty is lodged with the Railroad Commission to make rules to carry out the mandates of the legislature, and to impartially enforce them. In the exercise of its power to grant exceptions to its rules, it is the duty of the commission to treat all interested parties justly, fairly, and impartially under all the facts and circumstances of the case; and the actions and rulings of the commission in attempting to accomplish such results will not be disturbed by the courts, unless they are clearly illegal, unreasonable, or arbitrary. All rules and rulings of the Railroad Commission are presumed to be valid until the contrary is made to appear. If a rule of the commission is found to be illegal or invalid by a court of competent jurisdiction, such court may so adjudge. The court cannot substitute a new rule for the one adjudged invalid. That power rests exclusively with the Railroad Commission.

"With the foregoing explanation, the motion for rehearing is overruled."

Famed Phantom Boom Town of Pithole Is Hedged by Secondary Recovery

By R. C. CONINE

OIL CITY, Pa., Dec. 2. — The phantom boom oil town of Pithole, nationally famous 70 years ago, is being crowded on three sides by secondary recovery developments. Three modern compressor plants have been completed and a fourth is under construction. The numerous small farms in this section of Cornplanter and President Townships, Venango County, have with few exceptions been blocked into holdings of 1,200 to 2,200 acres by some five interests able to carry on extensive modernization programs.

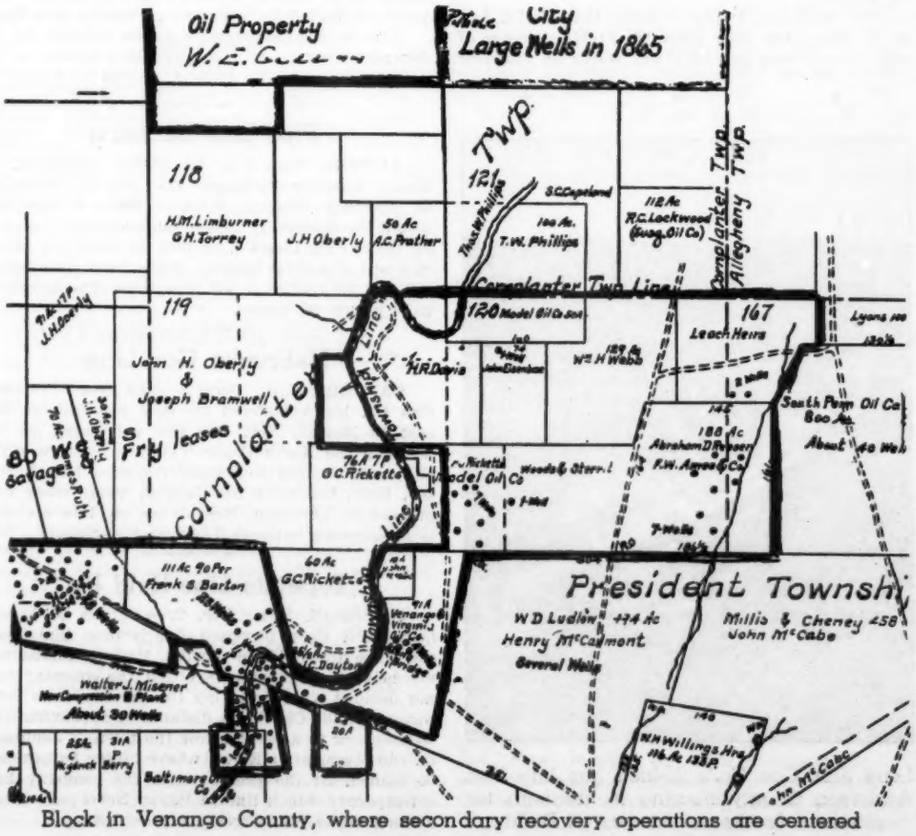
The central block of acreage shown in the accompanying map is held by the North Pennsylvania Oil Co., recently organized by M. Martens, New York City financier. The first pressure or gas inlet well is being cored at this time by Hazen Rice, contractor in charge of drilling on the property. West of this large tract are the holdings of the Essanes Oil Co., aggregating about 2,200 acres. These are shown on the map as the Savage & Fry leases. South of these are the extensive properties held by the heirs of Peter Berry, and the Walter J. Misener farm. On the east of the central tract are the South Penn Oil Co. holdings, and south of these the properties of the Long Oil Co. and the Prior Oil Co. Compressor plants for injecting gas and air into the oil sand have been completed on the properties of the Essanes Oil Co., the Peter Berry leases, the Misener farm, and another is nearing completion on the Long Oil Co. holdings. Plans are being drawn for a plant on the North Pennsylvania Oil Co. land.

Production in this district is chiefly from the Lytle and Second sands. On the Long Oil Co. property the Lytle or Red Valley is found at 755-790 feet, the 35 feet of sand showing an oil content of 7,780 bbls. an acre. The Second sand is thinner, about 9 feet, and is the last formation exploited at 900 feet. There is still some question as to the identity of the Lytle sand. Some operators believe that it is the upper part of the Second sand, while most geologists contend that it is a lower portion of the First. In other fields it is known as the Nineveh and Thirty-Foot. The First sand has always been ignored by drillers in this section, and this is true as far north as the Pleasantville district. The First sand is very spotty and in many places is dry where it shows a good thickness. It is known as a flashy sand. However, recent attempts to repressure the First or Hundred-Foot sand have shown it to be highly adaptable, production increasing rapidly and declining slowly.

Individually powered well pumped experimentally on Pithole Creek, Lytle sand lease

While the new repressuring developments in this district have not been in operation long enough to give a true indication of benefits from the use of secondary recovery methods, substantial increases in output are already noted. There are at least 16 strings of tool running, and from at least half of the wells drilled cores will be taken of all the oil formations. The so-called three-spot and five-spot patterns are generally being worked out, although at least one seven-spot has been planned.

The four new repressuring plants mentioned here bring the total of such installations in the Pithole creek district to eight. Other new developments were discussed in the August 4 issue of The Oil and Gas Journal.



Block in Venango County, where secondary recovery operations are centered

Overproduction in East Texas Drops to Record Low

FORT WORTH, Tex., Dec. 2. — The tightening of conservation enforcement in the East Texas field by state and federal authorities resulted in a record low in overproduction in the past week. Where excess production had been estimated around 25,000 bbls. daily the previous week it dropped to between 13,500 and 16,500 bbls. daily with approximately half of the total assured to be confiscated oil.

Credit for the state's part in the showing is given to the railroad commission forces under Chairman Ernest O. Thompson and Capt. E. N. Stanley, East Texas enforcement chief, and to Attorney General William McCraw and his assistants in the field and at Austin.

The increased efficiency of the state officers has been accompanied by increased activity of the federal tender board supported by recent court decisions upholding the constitutnonality of the Connally interstate "hot" oil law and the prosecution of truckers crossing the line into Louisiana.

Natural Gas News

General Committee Plans Gas Measurement Short Course

The general committee in charge of the Southwestern Gas Measurement Short Course held annually in the spring at the University of Oklahoma at Norman, Okla., held its first meeting November 25 in Oklahoma City and organized for the 1936 short course. Dates for the course, which covers three days, will be decided at a meeting early in January.

The committee as organized at the meeting includes the following:

R. D. Turner, Skelly Oil Co., Tulsa, chairman of general committee; Prof. W. H. Carson, University of Oklahoma, chairman banquet, entertainment and local arrangements committee; E. E. Stovall, Lone Star Gas Co., Dallas, Tex., chairman of program committee; Gilbert Estill, Oklahoma Natural Gas Co., Tulsa, chairman of exhibits committee; Max Watson, Canadian River Gas Co., Amarillo, Tex., vice chairman, exhibits committee; Ray Rountree, United Gas Co., Houston, Tex., chairman of committee for study of practical methods; Max Watson, chairman publications committee; and G. W. McCullough, Phillips Petroleum Co., Bartlesville, vice chairman publications committee.

R. D. Hanley, Magnolia Petroleum Co., Tulsa, was elected to membership on the general committee, which in addition to the foregoing includes the following:

Paul Stockwell, gas and electric engineer, Corporation Commission, Oklahoma City; A. E. Higgins, secretary of Natural Gas department, American Gas Association, Dallas, Tex.; Wm. F. Lowe, secretary of Natural Gasoline Association of America, Tulsa; W. R. McLaughlin, Pittsburgh Equitable Meter Co., Tulsa (general chairman, 1934); G. P. Bunn, Phillips Petroleum Co., Bartlesville; J. H. Satterwhite, American Meter Co., Tulsa; G. B. Lane, Foxboro Co., Dallas, Tex.; L. C. Rheinberger, Sinclair Oil & Gas Co., Tulsa; V. C. Jarboe, Empire Companies, Bartlesville; Fay C. Walters, Panhandle Eastern Pipe Line Co., Kansas City, Mo.; Earl Kightlinger, Arkansas Natural Gas Corp., Shreveport, La.

Former chairman of the general committee, now ex-officio members, are:

D. C. Williams, Kay County Gas Co., Ponca City; John H. Baxter, Inland Gas Co., Ashland, Ky.; E. A. Clark, Columbia Gas & Electric Co., Pittsburgh, Pa.; F. D. Franks, Cities Service Gas Co., Bartlesville; D. A. Sillers, Lone Star Gas Co., Dallas, Tex.; C. B. Day, Consolidated Gas Utilities Co., Blackwell, Okla.; and B. L. Maulsby, Oklahoma Natural Gas Co., Tulsa.

The 1935 short course held in April had a registration of 575 representing 22 states and 3 foreign countries.

Republic Natural Expansion

SAN ANTONIO, Tex., Dec. 2.—An agreement has been closed between J. K. Culton of Corpus Christi and Republic Natural Gas Co. for the purchase of gas from the Culton production in the newly discovered Corpus Christi field, Nueces County, Texas. Culton No. 1 Baldwin, discovery well of the field, is making approximately 1,000,000 feet of gas together with 67 bbls. of oil per day. A 2½-mile, 4-inch line will be laid connecting the field with the Republic system at Nueces Bay. This line will be laid for Republic by Houston Gulf Gas Co., United Gas Co. subsidiary. Republic Natural Gas Co. supplies Southwest Texas to several Gulf Coast cities for domestic consumption.

Creager Named President

R. B. Creager, of Brownsville, Tex., was appointed president of the Houston Gas & Fuel Co. after the three-year-old federal court receivership of the company was terminated. Mr. Creager had been receiver for the company. K. L. Simons, who has been manager since 1931, will be vice president and general manager.

Consolidated Gas Utilities

Consolidated Gas Utilities Corp., incorporated in Delaware last June, has filed its charter with the Oklahoma secretary of state and assumed the assets and business of the Consolidated Gas Utilities Co. The new organization also took over the assets of the old Consolidated Gas Service Co., formerly the operating subsidiary of the Utilities company. Logan W. Cary, president of the old company and trustee in bankruptcy since March 25, 1932, continues in charge.

Bought by Community Gas

LITTLE ROCK, Ark., Dec. 2.—Jos. H. Schneider, federal referee in bankruptcy, approved the sale of properties of Natural Gas & Fuel Co. and Central Texas Ice Co., Texas public utility concerns. The properties were purchased by Community Natural Gas Co., Dallas; H. C. Glenn, receiver for Temple Trust Co. at Temple, Tex.; R. S. Boysen, Brownwood, and William L. O'Connell, receiver for Chicago Bank of Commerce & Trust Co.

United Carbon Co. to Increase Its Productive Capacity

AMARILLO, Tex., Dec. 2.—Completion of two new units by United Carbon Co. will increase the daily productive capacity of carbon black plants in the Texas Panhandle to 485,000 pounds, from the present total of approximately 385,000 pounds.

United Carbon Co. started production early in November at three of five new units, and construction of the remaining two will be finished shortly.

The industry is said to be in more flourishing condition than at any time in its history, due to the marked increase in the demand for the product, especially for use in the manufacture of automobile tires. During the last four months the shipments of carbon black from plants in the Panhandle show an increase of 25 per cent over all of 1934.

Of the total amount of carbon black produced, 75 per cent is used in the making of tires for motor vehicles, 15 per cent in manufacturing inks, and the remaining 10 per cent enters into the making of shoe polish, rubber heels, paints and various other products. More than 60 per cent of the world's supply of carbon black comes from Texas Panhandle.

Pipe Line Progress

New Gas Survey in Michigan to Check Pipe Line Need

MUSKEGON, Mich., Dec. 2.—An independent survey of the increased natural gas reserves of central Michigan, now involved in a dispute between several companies seeking to lay pipe lines to Grand Rapids, Lansing, Battle Creek and other cities, probably will be made by the U. S. Bureau of Mines.

The Michigan Public Utilities Commission last week negotiated with John W. Finch, director of the bureau, who probably will select an engineer to make the survey at state expense under the direction of E. L. Rawlins, bureau engineer, who directed a previous survey last year. William M. Smith, chairman of the utilities commission, announced he would recommend acceptance of the bureau's proposal to Gov. Frank D. Fitzgerald.

The commission requires each company to prove it has an adequate supply of gas under contract before permitting building of pipe lines. The survey will provide an authoritative and impartial check on all gas reserves as well as on the supplies contracted by concerns proposing new lines.

The state administrative board ordered the independent survey at a meeting in Lansing on the motion of Orville E. Atwood, secretary of state.

Lone Star Gas Co.'s 20-inch gas line from Anderson County nearing its northern terminus at Irving station west of Dallas

Pipe Line Decision

AUSTIN, Tex., Dec. 3.—District Judge J. D. Moore Tuesday sustained the general demurrer of Attorney General William McCraw and dissolved the temporary injunction previously secured by Texas Pipe Line Co. against the state tax board in a suit attacking validity of the intangible assets tax law as applied to oil pipe lines. The company gave notice of appeal.

Nebraska Gas Line

CASPER, Wyo., Dec. 2.—The North Central Gas Co. has completed its new gas line as far east as Morrill, Neb. The line will carry gas to users in the North Platte Valley in eastern Wyoming and western Nebraska. The crew left Guernsey, Wyo., last week for Bayard, where work will proceed to Lewellen, Neb. Work on this division is progressing between Lisco and Oshkosh.

Tepetate Line Held Up

HOUSTON, Tex., Dec. 2.—Details of Continental Oil Co.'s proposed 6-inch pipe line from the Tepetate field in Acadia Parish, Louisiana, are held up due to the fact that the company has not decided whether to lay the line direct to tidewater at Lake Charles, a distance of approximately 45 miles, or to a point below the town of Jennings on the Mermentau River, where larger barges can be loaded. At the present time the company has a temporary 4-inch line to Bayou Nezpique, where loading docks for barges are provided.

Natural Gasoline

Production of Natural Gasoline Increased in California

Natural gasoline production in California during the month of October recorded a daily average of 2,000 bbls. over that of September, according to the Bureau of Mines report, the October daily average being 39,000 bbls. compared to 37,000 bbls. in September. Refinery utilization increased 6,000 bbls. daily to a total of 42,000 bbls. daily in October. Shipments decreased 50 per cent to 3,000 bbls. daily and stocks decreased 10,000 bbls. daily and at the end of the month were 1,538,000 bbls., or 1,010,000 bbls. less than at the end of October, 1934. There were 90 plants in operation during the month with a daily capacity of 2,042,500,000 cubic feet.

Daily average production of liquefied petroleum gases decreased from 1,155 bbls. to 1,373 bbls., of which 295 bbls. was produced at refineries in October. Daily average sales decreased from 1,283 bbls. to 1,237 bbls.

Still gas production during October amounted to 1,543,443,000 feet, equivalent on a B.t.u. basis to 361,336 bbls. of fuel oil.

NATURAL GASOLINE PLANT OPERATIONS, OCTOBER

Field—	Gas treated (thou. cu. ft.)	Nat. gasoline prod. (gals.)
San Joaquin Valley:		
Elk Hills	73,727	121,163
Kettleman Hills	11,380,150	16,002,252
Midway-Sunset	1,243,576	2,541,030
Mountain View	1,497,096	1,195,296
Miscellaneous	866,157	786,438
Coastal region:		
Elwood	285,039	608,880
Rincon	84,903	122,973
Santa Maria	128,253	342,326
Ventura Avenue	3,199,158	4,173,307
Miscellaneous	296,801	283,410
Los Angeles Basin:		
Coyote	348,939	846,822
Dominguez	881,961	1,417,925
Huntington Beach	2,330,833	4,056,465
Inglewood	212,617	339,087
Long Beach	2,318,432	7,720,288
Playa Del Rey	733,292	1,523,369
Richfield	368,572	655,425
Rosecrans	509,938	686,643
Santa Fe Springs	3,170,701	5,584,110
Seal Beach	426,845	591,282
Torrance	110,304	242,435
Miscellaneous	256,650	813,180
Total (all fields)	30,721,944	50,653,096

DISTRIBUTION

(Gallons)

Stocks beginning of month	3,178,609	
Production during month	50,653,096	
Delivered to refineries		48,650,841
Delivered to jobbers, brokers or blenders		1,707,951
Blended at plants for production of motor fuel		9,436
Losses		101,833
Stocks end of month		3,361,644
Total	53,831,705	53,831,705

	Gals.	Bbls.
Liquefied petroleum gas production	1,403,009	= 33,405
Motor fuel produced	8,887	= 212

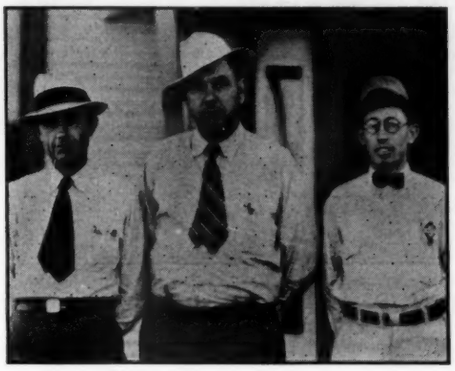
Continental May Build

HOUSTON, Tex., Dec. 2.—Continental Oil Co. is expected to start construction on a gasoline absorption plant within the near future, to be located in the Tepetate field, Acadia Parish, Louisiana. The gas produced from the company's four wells is above the average in richness. As soon as this work is completed, details of the plant will be announced. It is understood that the plant will cost $125,000. This will be the second natural gasoline plant to be located in Coastal Louisiana, the other being operated by Shell Petroleum Corp. in the Iowa field, in Jefferson Davis Parish.

To Start Construction on New Gasoline Absorption Plant

CHATHAM, Ontario, Nov. 30.—The British American Oil Co. of Toronto will next week commence the construction in the south end of the Turner Valley field of a gasoline absorption plant to cost approximately $300,000. The plant will have a capacity of between 60,000,000 and 75,000,000 feet of gas per day and will be ready for operation within five or six months.

Three other gasoline absorption plants are now operating in the field. The Royalite Oil Co. has plants in the central field and on the Sterling-Pacific lease in South Turner Valley, and Oil & Gas Products, Ltd., has a plant on the Mercury tract in section 4-19-2w5. The British-American company is at present taking naphtha from the Pacalta and Highwood-Sarcee wells in South Valley and is assisting the drilling of Highwood-Sarcee Oils No. 2 in section 21-18-2w5.



A. J. Sellers, general operating superintendent, gasoline department, Skelly Oil Co.; J. A. Rush, plant superintendent, Fairfax, Okla., and R. E. Bullock, chief operator, Fairfax

Clymore Decision Pending

HOUSTON, Tex., Dec. 2.—The injunction suit of the Clymore Production Co. against the State Railroad Commission and the United Gas and Texas Royalty companies attacking the commission's gas-oil ratio, under the new gas law, was brought to a close at Houston before a three-judge federal court composed of Circuit Judge J. C. Hutcheson of Houston and New Orleans and District Judges R. J. Mcmillan of San Antonio and T. M. Kennerly of Houston. The case was taken under advisement and a decision is expected to be rendered within the next few weeks.

Clymore Production Co. has several wells in the Agua Dulce field in Nueces County which produce both gas and oil and the controversy centers around whether they are oil or gas wells. A. K. Swann, attorney for the plaintiff contended they are oil wells, and said the company was entitled to run the wells at the most efficient gas-oil ratio as possible which would make the wells produce more oil than the commission has allowed.

North Texas Production

Casinghead gasoline production in the Ranger and Wichita Falls districts for October showed an increase of 17,093 bbls., running 223,975 bbls. for the month. Stocks, however, were drawn upon during the month by 16,820 bbls., leaving only 105,180 bbls. on hand as of November 1.

Refinery Projects

Unit Doubles the Capacity of Corpus Christi Refinery

Construction of a new distillation unit at the Corpus Christi, Tex., plant of the Corpus Christi Refining Co. is now in progress. The new unit comprising a tube still and bubble tower with all necessary accessory equipment will nearly double the present capacity of the plant.

The furnace is of 1,000-bbl. capacity. It will charge a 6'x55' tower containing 18 bubble trays. The tower will be equipped with a reboiler to facilitate sharp fractionation. In addition, 50,000 bbls. of storage consisting of two 25,000-bbl. tanks is being erected at the refinery site. The added storage will be used for gasoline and furnace oil.

The refinery operates principally on Saxet crude, maintaining a daily cracking schedule of 1,000 bbls. Furnace oil and gasoline compose the major products. With the new unit, the manufacture of special blenditng naphthas is contemplated.

The fractionation tower was fabricated at the Houston plant of the Wyatt Metal & Boiler Works. At the present rate of construction, the unit will be in operation by December 15.

Polymerization Process Being Studied for Use in Canada

OTTAWA, Canada, Nov. 30.—At the tariff board session here this week Leo C. McCloskey, vice president of Imperial Oil, Ltd., stated that his company had strong hopes that before long a part and eventually perhaps all of the natural gases now going to waste in the Turner Valley field will be used in gasoline production.

Mr. McCloskey outlined plans for the making of gasoline from Turner Valley gas by polymerization. The company has been experimenting for some time and now controls a number of polymerization processes; and is sure that a high grade of gasoline, suitable for airplanes and motor cars, can be made from the gas now wasted without the use of Montana crude.

The Turner Valley gases are four different compounds: Propane, butane, methane and ethane. Production of gasoline on a commercial basis from propane and butane, Mr. McCloskey stated, is now approaching the stage of feasibility, although he did not want to encourage too much hope. Production from methane and ethane will require further scientific development and is a matter for the more distant future. High costs will undoubtedly hold up commercial usage of the latter two gases for some time, even if science makes rapid progress in evolving a method.

A polymerization plant could be erected more cheaply in South America than in Alberta, Mr. McCloskey stated; and he intimated that a South American plant might be started in the near future. If it proves successful, it will be followed by one in Alberta. It may be possible to produce not only gasoline but alcohol and probably a rubber substitute from the Turner Valley gas.

Nortex to Open Rebuilt Plant

Frank Hawkins and R. E. Caswell of Fort Worth are remodeling the old Moon Refining Co. plant north of Graham in Young County, Texas, and plan to start operating the plant within the next 10 days. The rebuilt refinery will have a daily capacity of 50 bbls. of crude, which will be hauled to the plant by truck. The name of the company has been changed to the Nortex Refining Co.

Crystal Opens Carson Plant

CARSON CITY, Mich., Dec. 2.—Crystal Refining Co. of Carson City has announced it expects to open its new plant here this week. The plant, which has a capacity of 2,500 bbls. daily, will operate on crude from the Crystal field, refining approximately 1,500 bbls. daily. Two 500-bbl. agitators have been installed, giving the plant one of the largest treating systems in the state.

John Davidson, who drilled the first commercial oil well in Texas

C. M. (Dad) Joiner (left), who discovered the great East Texas field

C. M. Hapgood, who drilled the discovery well in the Texas Panhandle

Ardmore Proud of Its List of Residents Whose Oil Discoveries Are History

By ANDREW M. ROWLEY

Faith in a territory, such as only oil men can hold, bids fair to bring rewards to many oil men in Ardmore, Okla., and that vicinity as a result of the discovery of deep production in the old Fox pool in Carter County by the Carter Oil Co. and others whose No. 1 Ruth Williams blew in on October 24 with an estimated flow of 10,000 bbls. from 8,088 feet. Ardmore is pointing with pride to its list of citizens who have made oil history and who have opened, among others, the largest oil field in the world and the greatest gas field in the world.

Two of those interested in the Carter well, Wirt Franklin and W. H. Smith, have operated in the area for years and now stand to benefit materially from their perseverance. Mr. Franklin's company holds approximately 400 acres near the well and he personally owns about 1,000 acres of royalty in the area. Mr. Smith has considerable holdings, much of which was obtained by his father many years ago. The father, C. R. Smith, in the early seventies met a lieutenant in the U. S. Army stationed in Indian Territory. This lieutenant was from Pennsylvania and told Mr. Smith of lands he had seen in southern Oklahoma which had all the indications of oil lands such as he had seen in the oil country in Pennsylvania.

C. R. Smith and the lieutenant started from Lawton, Okla., on horseback and traveled over the section which is now Carter County and adjacent areas. Mr. Smith procured tracts of land through the area and he owned in fee the land on which the discovery well in the Graham pool was drilled in 1919.

Mr. Franklin, a resident of Ardmore, was interested with Roy M. Johnson, another Ardmore resident, in opening the Healdton pool in 1913. In this connection Mr. Johnson bought eight tracts of land for $250, seven of which later proved productive, and the note Mr. Johnson gave for the $250 was endorsed by C. M. (Dad) Joiner, another Ardmore resident who later drilled the discovery well which opened the East Texas field. Mr. Johnson holds leases on about 1,700 acres in the area near the Carter's new deep producer in the Fox pool.

The first commercial oil well in Texas was drilled by an Ardmore citizen, John Davidson, who died recently. Mr. Davidson in 1896 had a contract to drill a water well for the city of Corsicana, Tex. At 1,020 feet the well struck oil and made 15 bbls. Following the strike, the Corsicana Petroleum Co. was organized by Mr. Davidson and others, this company later becoming the Magnolia Petroleum Co.

The discovery well in the Texas Panhandle was drilled by another Ardmore citizen, C. M. Hapgood, who resides now in Madill, Okla. Mr. Hapgood, a drilling contractor, in the fall of 1917 completed for the Amarillo Oil Co. the well on the Masterson ranch, 6 miles north of the Canadian River in Potter County which made 50,000,000 feet of gas and opened the big Texas Panhandle field.

And to Wirt Franklin is given credit for drilling the first oil producer in Oklahoma County and the Oklahoma City area.

There are many interesting wells in the Fox pool area which have shown exceptional producing qualities over a long period. For instance the Sinclair Oil & Gas Co. drilled a well in the Fox pool in 1923 which came in making 60,000,000 feet of gas and which is still making 57,000,000 feet a day although more than $500,000 worth of gas has been sold from this well in the meantime. In 1923 Mr. Franklin drilled a deep test in the Fox pool to a depth of 3,600 feet and got a well making 39,000,000 feet of gas. That well, which is a southwest offset to the Carter well, is still making 30,000,000 feet of gas daily.

On the Sinclair tract mentioned above a well was completed in 1920 which made 30 bbls. of oil a day. Its production gradually declined up to 1925 but since that year the well has produced each succeeding year more oil than during the preceding year and is still producing.

The first geologist to engage in commercial petroleum work in what is now Oklahoma was H. B. Goodrich who went from Houston to Ardmore in 1903 for the Santa Fe Railway Co. He located the first Santa Fe (later Coline Oil Co.) well at the prolific Wheeler oil seepages in May, 1904.

Subsurface mapping of oil fields was introduced by the U. S. Geological Survey in maps of Healdton field published in 1915.

Main street in Ardmore, Oklahoma

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No Time to Relax

Good news continues to cheer the industry. Progressing negotiations for production and marketing stabilization in California, already reflected in a drop of daily crude output from a peak of 684,000 barrels to 664,000 barrels, are accompanied by reports that excess production in the East Texas field has been surprisingly reduced to a new low.

Credit for this impressive improvement is given to the state enforcement authorities, particularly Chairman E. O. Thompson of the Railroad Commission.

With adjustment of the situation in the two disturbing points, East Texas and California, the industry is in better shape than it has been for years, a fact conceded by one of the sponsors of a federal control bill at the last session of congress.

The warning, however, cannot be too often repeated against any disposition to assume that the restraints of prudence can be relaxed. At this season of the year overproduction of either crude or gasoline may easily wreck the most favorable prospects for the coming season. It has been fear of such rashness, as much as anything, that has deferred the revision of crude prices that producers have been hoping for as a consequence of their long cooperation in curtailment.

Sound Business

During the period of overproduction in East Texas sound business judgment suggested that companies financially able to do so supplement their requirements by purchases from the lesser concerns that did not have storage. The beneficial effects of this plan in assisting in stabilization were apparent to all.

Obviously the plants without storage facilities were dependent upon prompt sales to enable them to continue in operation and if sales were not made as quickly as needed the products were thrown on the market. The assurance of an outlet for the output of such plants at a fair price eliminated the necessity for disposing of them at distress prices and sustained the general market at a fair level for all concerned.

This experiment is recalled because if it was successful during the period of overproduction and high consumption it should prove equally important in the period of seasonal slackening of demand in case of any overproduction of refined products.

World Oil Rationing

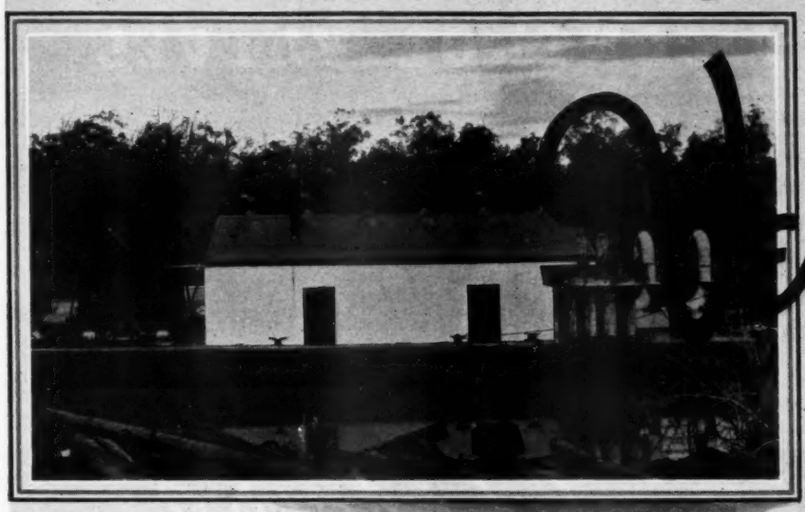
The dominant place occupied by oil in world affairs is being impressed upon readers of the news by daily dispatches from Rome, London and Paris. The League's threat to withhold oil from Italy in hope of compelling Mussolini to stop the war in Africa is met by his counter threat, if he is refused oil, to pull down the European house upon all of them.

An even more intriguing speculation is presented by Edwin L. James of the New York Times when he suggests that if the League is successful in bringing Mussolini to time by shutting off his oil will it not then become incumbent upon the League to halt Japan's advance into China by a similar boycott on oil to Japan?

If imagination can be stretched that far why not a little farther and vision the happy day when war will be ended by the refusal to supply oil for war purposes to any bellicose government?

And while we are about it, when that naval conference meets in London to revise the naval ratio, some one may ask would it not be simpler to settle the matter by rationing oil instead of striving to ration the ships that are impotent without it?

Now they do it in Venezuela!



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INSTRUMENTS

Oil News from Foreign Lands

JAPAN

In order to strengthen its position in the oil industry and secure greater independence in supplies the Department of Commerce and Industry of Japan, according to the Journal of the Fuel Society of Japan, has decided upon the following four lines of action:

1. To accelerate activities in North Karafuto (Sakhalin Island).
2. To prospect for new fields in Japan proper.
3. To undertake a study of the utilization of charcoal for automobiles.
4. To industrialize the hydrogenation of coal.

Experiments on hydrogenation of coal have already been completed in the laboratory and semi-industrial plants are now being constructed at the Imperial Fuel Research Institute in Kawaguchi City. If satisfactory results are obtained the government itself conduct the commercial operations.

The same report shows how dependent Japan is at this time for its liquid fuel supplies from outside sources. It also shows the rapid increase in consumption for most products. The report summarized gives the following data on supply and demand in Japan:

	1934	1933
Crude oil:		
Home production	1,872,835	1,504,411
Importation	7,546,277	6,405,422
Total	9,419,112	7,909,833
Gasoline:		
Home production	3,010,092	2,470,818
Importation	3,462,827	2,909,666
Total	6,472,919	5,380,484
Kerosene:		
Home production	576,466	502,162
Importation	552,124	362,625
Total	1,128,590	864,787
Exportation	27,877	32,079
Demand	1,100,713	832,708
Light oil:		
Home production	1,255,824	1,238,375
Machine oil:		
Home production	1,480,477	1,265,145
Importation	245,071	151,677
Total	1,725,548	1,416,822
Exportation	181,555	128,291
Demand	1,543,993	1,288,581
Heavy oil:		
Home production	1,413,369	802,837
Importation	10,168,131	8,243,944
Total	11,581,500	9,046,781

GREAT BRITAIN

After a long delay following passage of a law by which the government took over the mineral oil rights and was authorized to set up a procedure by which exploration work could be carried on, it now appears that actual drilling in England will start early in 1936. The Mines Department which has charge of the granting of licenses has issued permits to the D'Arcy Exploration Co., Ltd., which is controlled by the Anglo-Iranian Oil Co., Ltd., to drill several tests.

The fact that the D'Arcy company which carries on exploration work for the Anglo-Iranian company has taken out the permits indicates that a real effort is to be made to obtain crude oil production in commercial quantities in England. The company is said to have purchased special drilling equipment and is prepared to carry on work at several tests simultaneously. The company has done considerable geological work preliminary to the actual drilling. Company officials are said to be convinced that by careful and well correlated exploration work oil structures will be discovered which will end the period in which Great Britain has been almost entirely dependent on outside supplies for her oil requirements.

It is planned to drill tests at several widely scattered points. Under the control system worked out by the government, tests must be drilled by the company or individual to whom the permits are issued within a specified time. The D'Arcy company permits cover drilling in Surrey, Sussex, Hampshire, Dorset, Wiltshire, Rutland, Cambridgeshire and Norfolk.

The Scottish Oils, Ltd., which is also controlled by the Anglo-Iranian company is endeavoring to increase its shale oil supplies. The company operates refineries at Grangemouth and Uphall, near Edinburgh, Scotland, using both crude petroleum and shale oil. The shale from the existing mines is being depleted and it has been known for some time that additional reserves must be found if shale was to continue as minor source of supply for oil requirements.

The company at present is sinking two new shafts at West Calder where test holes last year determined the presence of shale seams. The shafts will be sunk to a depth of 450 feet. They are 18 feet in diameter. A railway has been extended to the location of the shafts.

W. L. GOMORY

William L. Gomory, chemical engineer and petroleum technologist, is technical and patent counsel for the Process Management Co. (Gasoline Products Co. and its affiliates) and is in charge of European patent matters with headquarters in Paris, France. He is well known in the technical and legal circles of the refining industry, both in the United States and abroad.

After 20 years of activity in designing, constructing and managing oil refineries at home and abroad, he was appointed, in 1926, by the Standard Oil Development Co. as technical and patent advisor, in charge of European patent matters.

RUMANIA

Oil producers and refiners in Rumania are faced with the possibility of increased taxes instead of reductions in the present burdensome rates. King Carol, supported by leading governmental officials, has announced that the budget for the coming year should be expanded to provide a fund of several million dollars for national defense. It has been suggested by certain factions that additional taxes be levied on both crude oil and the products of refineries.

This proposed action comes at a time when those familiar with Rumanian conditions have contended that contractions in operations were inevitable unless there was greater cooperation between the government and the oil industry of that country, applying not only to a reduction in tax burdens but also the lifting of restrictions placed on the purchase of needed drilling and refinery equipment. To protect its currency, expand home industries and promote trade with certain countries, the government has adopted regulations which have placed a great hardship on companies which are attempting to expand or maintain their present operations. The government has also been urged to aid in promoting the construction of pipe lines from the fields and refineries to the coast with a view of lowering costs. Present taxes are said to exceed those of any major oil producing and refining country.

It is reported that the government has in mind a plan of placing the tax burden on imported crude and refinery products only, so that there will be no objections as to high prices from consumers in Rumania. Representatives of the oil industry have pointed out that the Rumanian industry is already operating under a serious handicap in world markets due to existing high taxes and further increases will force them to give up market outlets to operators in other countries. Present crude oil production in Rumania is approximately 140,000 bbls., the bulk of which is exported either as crude or refined products.

MEXICO

The following table gives values and production taxes from Mexico for October (calculated in silver at exchange of 3.60):

VALUES

Fuel oil	22.64 silver pesos per cu. meter =	$1.00	bbl.
Gasoline ...	30.93 silver pesos per cu. meter =	.0851	gal.
Kerosene ..	46.79 silver pesos per cu. meter =	.0492	gal.

PRODUCTION TAXES

	Tax per cu. meter (pesos)	Tax in U.S. currency (per bbl.)
Crude (sp. gr. 0.93 = Be. 20.38)	2.454	$0.10837
Crude (sp. gr. 0.96 = Be. 15.68) or heavier	1.472	.06501
Fuel oil (sp. gr. 0.95 = Be. 17.21)	2.264	.09998
		(per gal.)
Gasoline (crude)	3.237	.00340
Gasoline (refined)	1.619	.00170
Kerosene (crude)	2.807	.00295
Kerosene (refined)	1.404	.00148

The production tax on fuel oil will vary approximately .00820 per barrel for each degree of specific gravity above (deduct) or below (add) 0.95 specific gravity.

The production tax on light crude will vary approximately .00889 per barrel for each degree of specific gravity above (deduct) or below (add) .093 specific gravity.

EXPORT TAXES

Note: As export taxes are payable in silver at par, to make calculations in U. S. currency, take figures given below, multiply them by 2 and divide by rate of exchange at time of payment.

	U. S. currency ($1 for 2 pesos) (per bbl.)
Crude (sp. gr. 0.93 = Be. 20.38)	$0.07949
Crude (sp. gr. 0.96 = Be. 15.68) or heavier	.04928
Fuel oil (sp. gr. 0.95 = Be. 17.21)	.05962
	(per gal.)
Gasoline (crude)	.00472
Gasoline (refined)	.00189
Kerosene (crude)	.00151
Kerosene (refined)	.00057

Operating Economies Principal Factor in Selecting Pumping Equipment

By AUSTIN ALLEN
Mechanical Engineer, Phillips Petroleum Co.

There is some doubt at the present time as to the proper type bearing for the crank pin and pitman connection. Three to five thousandths of an inch clearance is necessary in an antifriction bearing to allow for heat expansion. It is alleged this clearance will magnify the shock load imposed upon the crank pin and in several cases has caused same to fail. Because of the hardness of the roller and small line of contact between same, this shock load is highly concentrated. It is possible, therefore, a closed type oil bath crank pin bearing will prove more satisfactory. Roller jack post bearings have been attributed without causing crankshaft failures. In one instance, periodic crankshaft failures inside the front jack post bearing were eliminated by replacing the roller bearing with oil bath bronze. It is safe to say that considerable shaft breakage could be eliminated by the proper fitting of the front jack post bearing with laminating shims.

Split Hub Cranks

During the last year, we have had several crankshaft failures and it has consequently been necessary several times to put the old crank on a new shaft. We have also had several cast iron crank failures consisting of breaking a casting during removal of same from the shaft. The newer rig designs include cast steel split hub cranks to overcome this weakness.

There are three types counterbalances in common use: the Grasshopper which is satisfactory for slow speed pumping which might be designated as polish rod speeds up to 140 feet per minute. For speeds over this, the well loads are usually such that the jump of the bandwheel, caused by gas engine explosions at the zero load points which are at the top and bottom of the stroke will cause rod breakage. The beam balance is fastened directly to the back of the beam. If the beam is not accurately aligned this type balance will cause it to wobble considerably. The rotary balance overcomes both of these difficulties, its inertia smooths out the operation of the well and reduces peak loads on the engine and transmission equipment. Rotary balances, however, do not balance the well regardless of the length crank stroke as do beam balances, so it is necessary to add or take off weight when the crank stroke is changed. The beam balance, when once adjusted as to weight will balance a well at all speeds and length strokes. However, it requires a pitman that will stand compression as well as tension and is rather bulky to handle. It does, however, reduce the load on the bandwheel shaft.

Application of backside crank pumping to one or more wells from standard rig fronts, individual pumping units and gear reduction units is described in the accompanying article along with the economies of large central powers of the geared type. This is the second of a series of two articles by the author on "Surface Pumping Equipment," the first article appearing in the November 28 issue, on page 24.

There are three types transmission assemblies now in common use for standard rig fronts: the belts, both flat and "V" types; chains, both open and closed; and geared, both helical and herringbone. "V" drives as used for pumping are in the purely experimental stage. The "V" flat drive, which embodies the use of a small "V" sheave and large flat sheave, has proved very satisfactory where the diameter of the large pulley is at least three times that of the smaller.

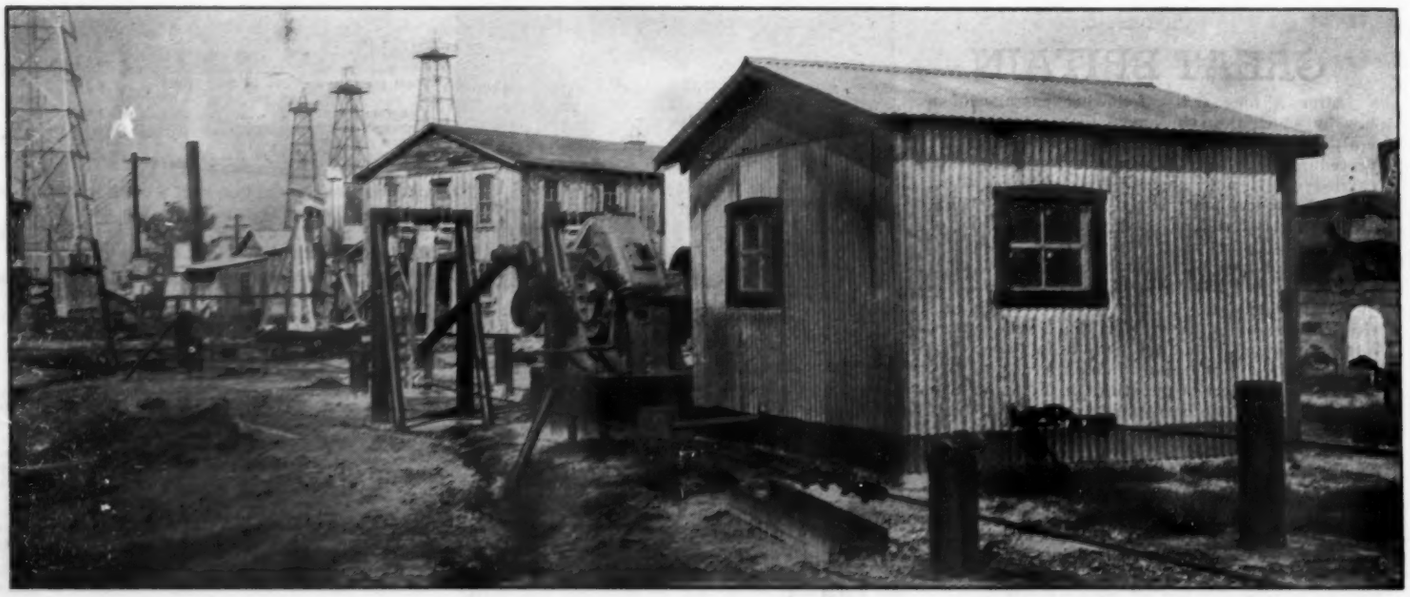
Records show endless flat belts are more desirable than cut length belts for heavy installations as it is possible to adjust the drive for climatic changes which have a tendency to cause the belt to elongate or shorten. These idlers have more recently been designed to include rubber cushions so that the operator may readily determine whether or not the belt is operating under excessive tension. With endless belts, the amount of bearing trouble and shaft breakage is reduced and the belt life is increased. Experiments on extremely severe drives have indicated that the belt splice as well as belt bootlegging problem have been solved.

Idler Position Important

A way of further decreasing the bearing and shaft loads of a flat belt rig front is to increase the arc of contact of the belt on the small pulley by placing the idler near the small drive pulley and shortening up the distance center to center between shafts sufficiently so the idler in that position will have enough take-up to allow for the amount the belt will stretch throughout its life. Several of these so-called short center belt drives have operated satisfactorily without belt replacement for more than three years' time on heavy wells. The economic value of this type drive is obvious.

The open type chain rig fronts with double pitch 2-inch chains require proper lubrication and maintenance for satisfactory operation. They will not, however, handle wells of over 17,000-pound load satisfactory and if such a well is encountered, sprockets and chain should be replaced with one of 2½-inch pitch with heavy side links or a short center flat belt drive.

A gear installation is similar to that in pumping units with the exception the single crank lay-



A four-well backside crank power in the East Texas field. The 45-h.p. gear unit is powered by a multi-cylinder engine through v-belts

A large geared power installation that reflects the trend of modern pumping practices. This power has a rating of 100 horsepower for relatively high pumping speeds. Power is transmitted from a 90-horsepower twin-cylinder 2-cycle gas engine by a v-belt drive to the roller bearing equipped high speed line shaft connected to the power

out of the rig front imposes high loads on the front jack post bearing on the front side of the gear box and the unit must be designated for this load.

Experience with slow speed gas engines pumping heavy wells indicate a countershaft or jack shaft is necessary. First, to obtain proper engine speed, and second, to obtain proper pulley size for longer belt life. As it is no longer necessary to have reversing gears in the pumping rig, and with the proper engine speeds, a straight way clutch may be placed either on the engine stub shaft or countershaft. However, the rig should be so installed that should the occasion arise a reversible clutch could be put in the assembly at a reasonable cost so the rig could be used for remedial work.

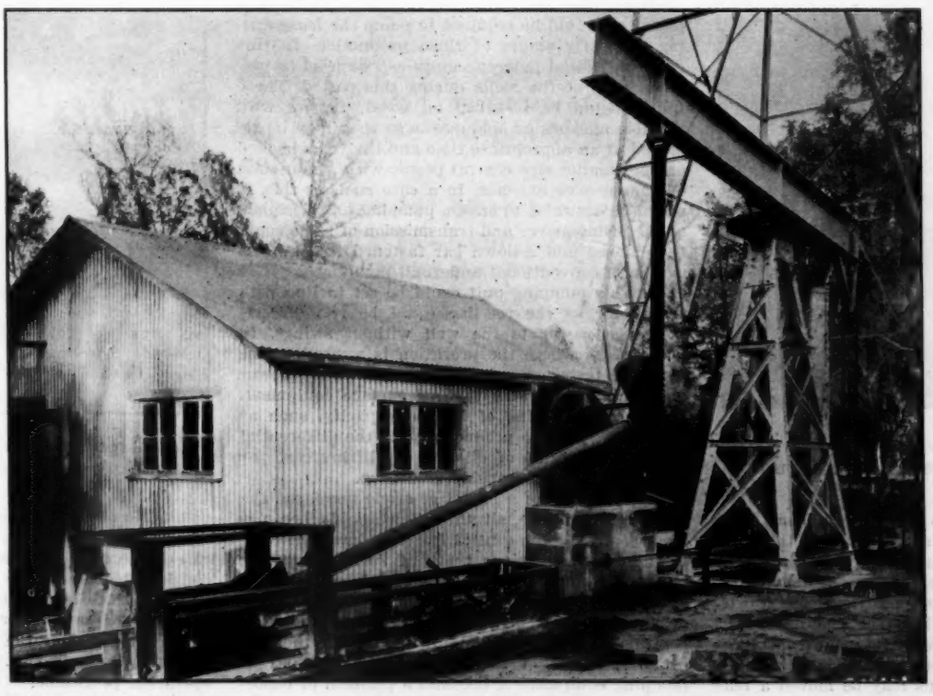
Recent installations of rig fronts have included concrete floors in the engine house, belt hall, and derrick, as well as a narrow walk down the front side of the rig between the front engine house door and the derrick floor. These floors eliminate the hazard of the operator tripping on loose boards or gravel rolling under-foot, and falling in the machinery. This will not only be safer, but give a clean well-kept appearance to the inside and outside of the pumping installation, thereby encouraging the pumper to take better care of the machinery. Although their value is intangible, they are worthwhile and should be used on all new installations. A convenient belt hall is one for which 2-inch pipe upright are set into 2½-inch pipe holes in the belt hall floor. The sheet iron is nailed to wood stringers bolted thereto.

A convenient way of designing tractor hold-down block is as follows: Put four or five reinforcing bars into the bullwheel brake concrete derrick corner in such a manner that 3 or 4 feet of same project out in the general direction of the bullwheel brake band hold-down clevis. Then at a later date, when preparations are being made for concrete derrick floor, a pit should be dug about three-fourths of a yard capacity per 1,000 feet depth of well with these reinforcing bars protruding into same.

The anchor bolt for the bullwheel brake may be suspended over the same cavity and after the concrete is poured the block of concrete along with a portion of the derrick floor and the rig corners, will act as an anchor block for the stinger or floor block. Installations of concrete derrick floors include a 4-foot square pit 4 feet deep around the casinghead connections with a welded grilled floor. The lead lines, vacuum line, and drain run through an 8- or 10-inch pipe conductor layed under the floor.

A two- or three-well lease may often be pumped economically with one rig front or pumping unit. In the case of the pumping unit, the second well take-off consists of a down bar similar to that of a pumping jack fastened to the walking beam, samson posts of individual pumping units are designed so this down bar will clear the samson post braces, or one or more of the redundant braces may be removed to allow clearance. A draw bar bracket straddles the tubing and casing connections. This draw bar is supported on suitable rollers at the far side of the casing connection and connected with a knock-off post. The rod line and jack are extended on from this post in the conventional manner. By changing the position of the draw bar bearing on the down bar, the length pull rod stroke may be varied, or a multiplier may be used for the same purpose. In this assembly, the jack will counterbalance the beam well. If it is desired to pump the unit well with the jack well disconnected, the regular unit counterbalance is used. If, however, it is desired to pump the jack well with the beam well disconnected, it is necessary to disconnect the pumping unit from the polish rod and affix a weight to the front end of the pumping unit's walking beam.

Many backside crank installations have been made on wooden rig fronts; however, the wooden jack post must be reinforced to provide for the horizontal thrust load imposed on the jack post. If this post



Five wells being pumped from one gear reduction unit and rig front. This assembly is powered by a 40-horsepower two-cycle, gas engine using v-belts for transmission

is properly braced, satisfactory results may be obtained if only light wells are pumped.

With a steel rig front, several heavy wells can be pumped on the backside very satisfactorily. There are four types of assemblies in common use: the first consists of a home-made crank pin bearing usually made of lightweight casing clamps the ends of which have been machined to hold the pull rod. In this setup, a conventional knock-off post is generally used. The next most commonly used type consists of a backside crank driving a pipe pitman which in turn drives a cross head to each of which suitable knock-off arrangement is connected. The third type assembly in common use is a pitman driving a pendulum suspended from a bearing 5 or 6 feet off the ground. The rod lines are connected to the bottom of this pendulum and run through either conventional or improved type rod line knock-off connections. The fourth type consists of horizontal swing driven by a pitman from the backside crank. One end of this horizontal swing is semicircular in shape and forms the equivalent of a push and pull power. From this device, a rod line may be run in any direction whereas in the other types devices, rod lines must extend in a line parallel with the line of the rig. This latter mentioned device will handle five or six rod lines. Conventional or improved type knock-off post is used in conjunction with this machine. Rod lines and jacks are run and set in the same manner as they are set for a central power installation, however, as a backside crank capacity is from 24- to 44-inch stroke depending upon the position of the wrist pin, it is desirable to install jack and rod lines of sufficient size to fully develop the length stroke and horsepower available. Roughly, 50 to 75 per cent more fluid can be produced from a given depth with a pumping jack driven by a backside crank than can be produced by one driven by a central power because of the greater flexibility as to length stroke and strokes per minute and usually the length rod lines of a backside crank setting are considerably shorter than for a central power setting.

In the past, it has been customary to locate the position of the engine house with respect to

Horizontal swing type of backside crank unit, powered by gear reduction unit

the well by such items as ground conditions, prevailing winds, surface drainage, etc. With the more common use of backside pumping, where it is possible, the rig should be located in a direction that will enable other locations on the lease to be pumped by backside cranks with a minimum of rod line deflecting paraphernalia. Due consideration should be given ground conditions between wells and the well locations may be moved a reasonable amount so possible future rod lines will clear building and ground irregularities thereby reducing the cost of backside crank installations.

The amount of down time for a well pumped by a standard rig ranges from 10 to 30 per cent and considerable of this down time is caused by shock loads imposed on surface and subsurface equipment because of engine impulses or other shocks generated by the transmission equipment. With a rod-line pumping jack installation most of

Rod line swing of the two-arm type, equipped with oil bath, dust proof bearings

these impacts are absorbed by the rod-line and it has been observed the down time is reduced to from 5 to 15 per cent. This consideration offsets somewhat the inability to pump as much fluid with a jack as with a standard rig or pumping unit. This reduction in down time is also indicative of lower maintenance costs.

In some flush areas, leases have been equipped with central powers even though several of the wells could not be produced to capacity with the pumping jack. In some of these cases a portable pumping unit is available and moved to the large wells for potential test or these wells are equipped with units until such time they have declined sufficiently to be satisfactorily handled by rod-line and jack. In this way, the investment advantages of the central power are gained without being handicapped as to production or potential test.

It is often not desirable to put in as large a power as would be required to pump the lease during the early stages of flush production. In this case, individual pumping units can be used to produce some of the wells during this period. These units should be installed on wood timbers with suitable anchors or hold-downs so they may be removed at an appropriate time and the wells hooked on the smaller size central power with a minimum of change-over expense. In a case such as this, it might be desirable to have a pumping unit designed so the prime mover and transmission of same could be removed and a down bar fastened to the beam making a conventional underpull pumping jack out of it. This pumping unit could be set in line with the power so the rod-line could be run directly from the power to the well without swings. In other areas where the proration is worked out so potential tests are not necessary, a central power is often the desirable type of surface equipment. In using a machine of limited capacity, such as a pumping jack, to produce a well, the differential between the value of oil and the lifting cost per barrel of oil, is a considerable item.

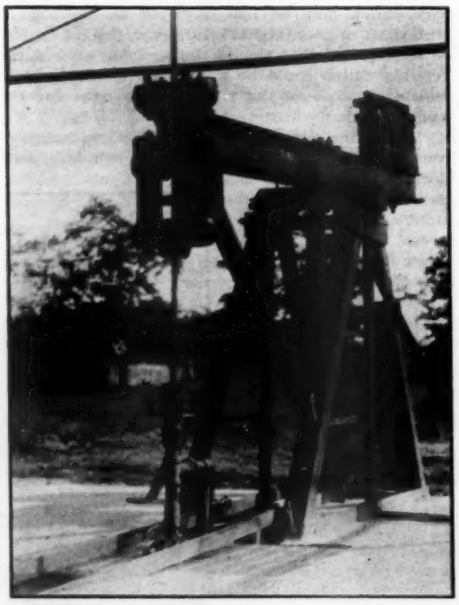
As the value of a barrel of crude increases, the failure to produce all the oil available becomes more costly. As the central lease power is the least flexible of the various types of surface pumping equipment, it is more likely certain wells on a given lease will not be produced to their best advantage if the central power is used. But as a central power properly installed will have the lowest lifting cost of any of the various types of pumping equipment it becomes a problem of choosing the amount of production that can be sacrificed in order to use the most cheaply operated lifting equipment.

One of the major items of lifting cost is the transportation expense in moving men, tools, and material from the district tool house or center of operations to the lease at which repairs are to be made. The type equipment that minimizes this cost is consequently more suitable for leases that are far from the center of operations. It is, therefore, often possible the amount of lost production caused by down time is less with the use of a mechanical power because of the reduced maintenance necessary thereto, and the ability of the pumper to perform most of the maintenance jobs. The now common use of improved type portable tubing and rod servicing trucks and the economics incident to the use thereof have entirely overcome the previous disadvantage of a pumping jack installation in that separate servicing facilities were necessary.

Leases with uniform well patterns in comparatively level country are naturally more adaptable to rod-line and jack operations than those where the well pattern is erratic or where ravines, streams, hills, and other ground irregularities exist. However, powers have been installed and operated satisfactorily where the terrestrial conditions are very irregular. The use of modern type hold-ups, hold-downs, swings, and the running of rod lines on suitable catenary curves have made it possible to install a power almost anywhere. Graphic analysis of estimated well loads and estimated pumping time cycles enable a producer to make a satisfactory installation even though the well size and location on the lease or leases is very irregular. However irregular well locations, several leases served by the same power in combination with proration is a rather difficult problem and can only be solved by the use of oversize machinery and due recognition of the value of load analysis on the part of the operator in order to keep the machine properly balanced.

The investment cost per horsepower per well of central mechanical powers, backside crank hookups, or individual pumping units is fairly uniform excepting that it varies with the number of wells being served.

As the unrecoverable investment cost becomes increasingly important, the shorter the expected eco-



An underpull pumping jack of the latest type. Oil bath dust proof bearings are used

nomic life of a lease the mechanical power is more desirable where a long lease life is expected. In cases where it is possible the wells will make considerable quantities of water, it is not desirable to install a lease central power unless it has been proved satisfactory water shut-off jobs can be accomplished or the pumping jacks can handle economically sufficient salt water to make lease operation profitable.

The maintenance cost of a central power will vary materially with the size and depth of the well being produced. The direct lifting cost will range

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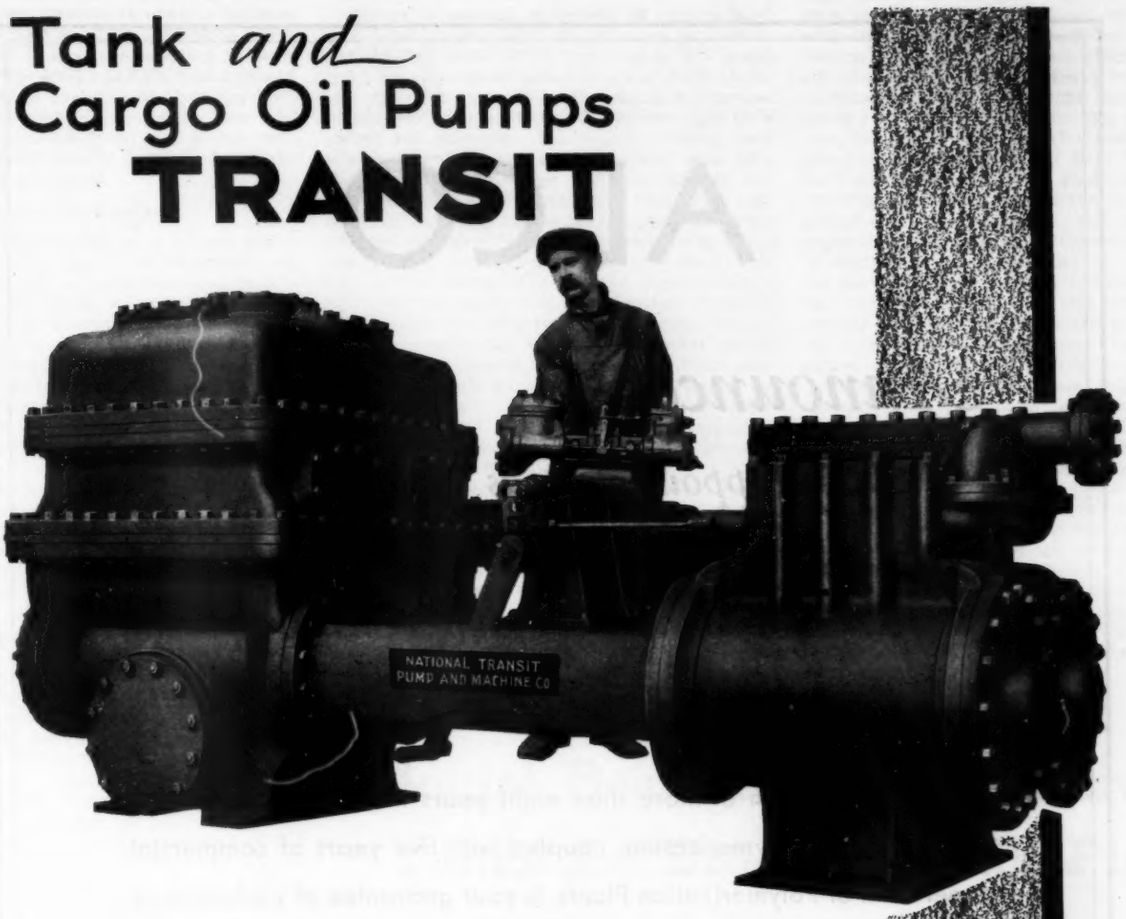

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from $10 to over $100 per well per month, depending upon the surface and subsurface conditions encountered. The items of lifting cost of a central power installation in a deep area or one in which large volumes of fluid are produced are roughly one-third surface equipment maintenance, one-third lease equipment maintenance which includes the pumper's time, and one-third subsurface equipment maintenance. It has been observed in most cases where standard wood rigs have been replaced by central mechanical power or by steel rigs with additional wells on backside cranks the lease lifting cost has been reduced from 30 to 40 per cent, and this reduction was equally distributed over the above three items mentioned.

Power Efficiencies

The mechanical efficiency of a central power from the prime mover output to the knock-off posts will vary from 50 to 70 per cent depending mainly upon the relationship of the connected load to the size load for which the machine was designed. This efficiency also varies, but to a much smaller degree, with the amount of refinements incorporated in the machine. Rod-line friction loss will vary from 0.1 to 1.5 horsepower per 1,000 feet of rod-line depending upon the number of hold-ups, hold-downs, swings, etc., in the line and upon the size of the line itself. The use of catenary curves will materially reduce this rod-line friction. The mechanical efficiency of pumping jacks will range from 60 to 90 per cent depending mainly upon the jack multiplication factor, and partly on the design of the jack itself.

Central powers are more suitable for stripper areas where the oil production per well is small and consequently it is desirable to keep lifting cost at a minimum. The three or four-well backside crank hook-up is more suitable for similar areas where the individual well production is greater, or the wells are deeper, or fewer wells on the lease.

During the last year or so, most of the prominent engine companies have redesigned their machines. Slow speed engines on the market today are fully enclosed with forced feed lubrication, anti-friction crankshaft bearings, oil filters, air cleaners, magneto ignition, higher compression heads and heavier flywheels. Consequently, they are capable of running continuously at higher speeds, thereby enabling a slightly smaller engine to be used reducing the cost per horsepower of continuous load available. The higher speeds is 300 instead of 200 r.p.m., heavier flywheels give a much smoother flow of power to the transmission of the pumping rig. The medium speed engine, from 300 to 600 r.p.m., and high speed engine from 600 to 1,200 or more revolutions per minute have been quite popular recently as pumping unit prime movers. The prime reason for their popularity is first, reduced first cost, which includes the installation cost as part of the first cost; secondly, materially larger percentages of salvable items in the total cost; and third, smoother flow of power because of the higher impulse rating, e.g., combustions per minute. Sufficient information is not available to set definitely the relative operating cost of the two machines, but indications show if the machine is to be moved at intervals of three years or less, or if the machine is to pump less than 10 hours per day, a high speed engine is more economical than a slow speed engine. The third type engine, the medium speed, appears to combine the advantages of both machines, however, initial cost of this type engine at the present time is quite high.

With the use of pulling units for servicing wells, the loads to which pumping engines have been subjected have been materially reduced. Conditions of the gas engines in use indicate they are receiving better care now than formerly, and it is obvious repairs and adjustments are being made at the time trouble first becomes apparent thereby preventing major overhaul. Experiments are under way with spark plugs, piston rings, and bearing material. When hydrogen sulfide gas is encountered, it is necessary to use shorter spark plugs in order to protect the electrodes of the plug from the extreme heat developed during the combustion of this type gas.

Unless an engine is extremely heavily loaded, it is desirable to use a comparative soft piston ring in order to minimize cylinder wear. For engines in which main or crank bearings run hot, the shell type bearing capable of radiating heat more rapidly might be used to advantage, however, if the bearings do not overheat this type bearing is not desirable as more cracking is experienced with it than with bearings of thicker sections of babbit.

Several diesel and other type oil engines have been experimented with for all types production and drilling work. This type engine has about twice the thermal efficiency of a gas engine, however, it is not as flexible. The engine has proved satisfactory for practically all services other than sucker rod pumping. The rapidly varying load from a pumping well is such a diesel even with the latest improved type fuel systems will not operate satisfactorily on this type load. This type load will cause the fuel to burn improperly, thereby plugging spray nozzles, exhaust ports, excessive carbon disposition sticking of piston rings, etc. At the present time a diesel engine costs 50 to 75 per cent more than a gas engine of similar refinements and sizes, however, this price will be reduced considerably when more general use of diesel engines is made. Several diesel or gas, electric power plants have been developed during recent years. Very little dificulty has been experienced with these plants. Most of the recent installations have been in areas heavily prorated where the total horsepower required is a small percentage of the horsepower that would be required if all the wells were produced at the same time. In one instance, a 125-horsepower generating unit was used to produce eight wells which would have required 30 horsepower per well or 240 horsepower if individual well prime movers were used. In this case, the operator had a considerable stock of electric equipment on hand and was able to materially reduce the cash investment by this setup. If, however, the pool started producing considerable quantities of water or proration were lifted, it would be necessary to install two additional generating units or buy power or install clutches and gas engines at each well. An electric motor has several advantages and disadvantages compared with gas engines as prime mover for an oil well. The operating labor, repair labor, shutdown time, surface transmission repair work, and subsurface repairs are considerably less on a heavy well if an electric motor is used as a prime mover than they are if a gas engine is used for this purpose. However, an electric motor is not as flexible from a speed standpoint. If an oil field type motor is used considerable power is dissipated if the motor is operated at a speed which requires the resistant grids in the circuit. Surveys have been made from time to time, pulley ratios subsequently changed so the motors may be operated without the resisted grids in the circuits, however, as the pump parts wear and their efficiency consequently falls off, it is necessary to speed up the rig slightly until the time when the pump is repaired and during this interval the resistance is necessary in order to obtain this small speed change. For areas in which small volumes of fluid are produced per well, the constant speed motor or newer type motor gears are suitable. In this case reduced pump efficiency can be counteracted by increased pumping time. For small loads on isolated properties, where lease labor is not readily available for repairs or where gas must be purchased, an electric motor is a very suitable prime mover, however, in other areas where ample lease or pumping labor is available, a gas engine is the most economical to use. Diesel or gasoline engines should only be used for isolated properties where gas or electricity is not available.

Colonial Beacon Builds Rectangular Tanks for Brooklyn Bulk Plant

Three arc-welded rectangular bulk storage tanks were just completed by the Colonial Beacon Oil Co. at Brooklyn, N. Y., which provide 600,000 gallons of additional capacity.

Each tank is 60 feet long, 38 feet wide and 12 feet deep, and contains two compartments. A total of 241 tons of steel was required for construction. This was made up of 180 tons of steel plate, 60 tons of angles and 1 ton of fittings. The shell of each tank is three-eighths-inch plate, reinforced by steel braces spaced on 2-foot centers each way. The horizontal braces are angles, 1¼"x1¼"x$\frac{5}{16}$". Vertical braces are angles 1¼"x 1¼"x¼". The corner angles are 3"x3"x⅜". In welding the trusses, the entire assembly was placed in a jig to insure accurate spacing, alignment and squareness. The trusses were welded up in sections and properly positioned on the tank bottom which consists of steel plate three-eighths-inch thick, welded together, and resting on a concrete base. When the entire truss framing was properly placed, all trusses were tied together by angles extending across the framing at the intersection of each vertical and horizontal member, and welded to both verticals and horizontals.

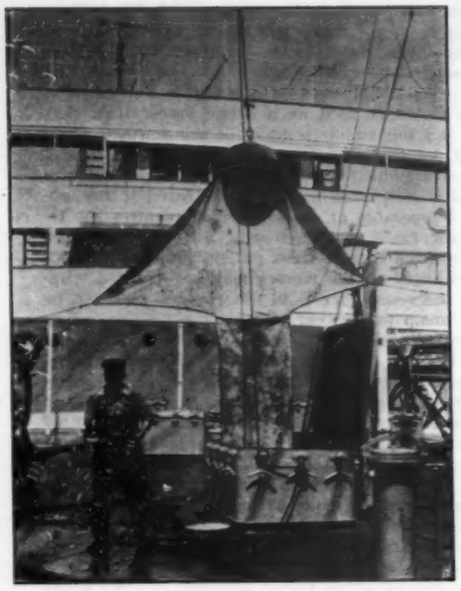
When the entire frame had been tied together into one integral, the vertical members were welded to the steel bottom. Next step of construction consisted of attaching the three-eighths-inch side and end plating.

Bulk storage plants in metropolitan New York are adopting rectangular tanks increasingly. In congested districts, it is often possible to obtain greater storage capacity than would be possible with a cylindrical unit. In addition to providing greater capacity for a given space, the rectangular tank permits savings on concrete and reduces excavation.

The tanks were built by the J. K. Welding Co. and all welding was done with Lincoln arc equipment.

One of the 200,000-gallon rectangular welded tanks built for Colonial Beacon

OPERATING IDEAS

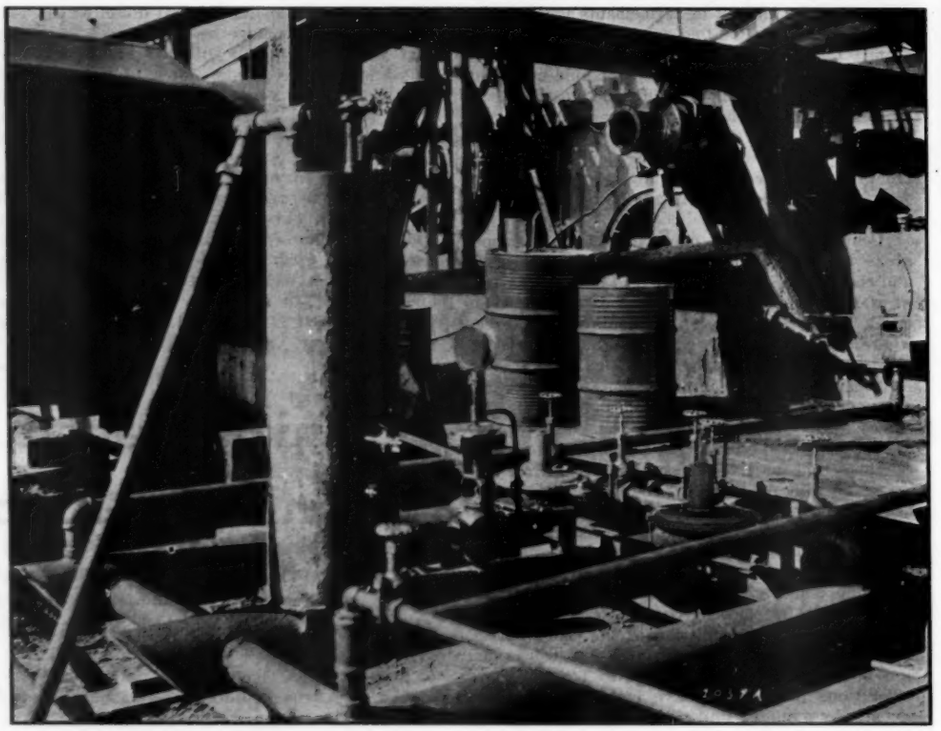


Wind Sail for Removing Fumes

A novel idea now being used by oil tankers might be as successfully applied in refineries, tank car depots or other industries where tanks are periodically cleaned or inspected. The picture shows a wind sail, which is made out of strips of canvas sewed together, leaving a hood at the top and opening with flaring wings to catch the wind and force it through the tunnel extending down into the oil compartments in an oil tanker. This wind sail is used for the purpose of clearing any gas out of the compartments so that men can go down into the tanks to make inspections and repairs without any danger of being overcome by fumes that might otherwise be present in the compartments. The sails are suspended from a loading boom, generally being hung into the compartments for at least 48 hours before men are allowed to go down into the compartments. This is one of the many safety contrivances used on oil tankers to aid in preventing possibly fatal accidents.

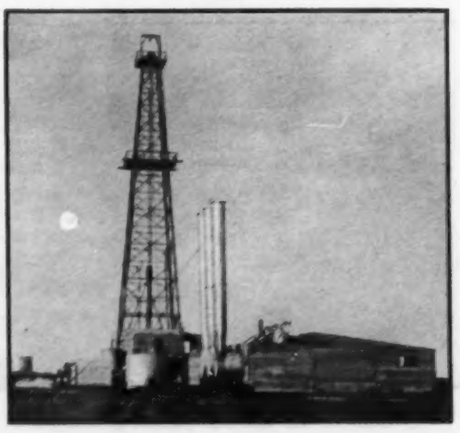
Volume Chambers With Gas Scrubber Tank on Drilling Rig

Having gas furnished at 625 pounds per square inch for fuel for the multi-cylinder engines powering his rotary rig a Mid-Continent drilling contractor, in order to reduce the pressure to 6 ounces at the intake manifolds of the engines, found it necessary to construct the volume chambers and scrubber tank with reducing regulators shown in the accompanying cut. The gas enters the top of the 12-1/2-inch chamber and is conducted to a point near the bottom of the chamber by the two-inch pipe shown protruding through the top. The chamber is filled to near the upper connection, of the two small ones shown on the side, with crude oil, which serves to remove any rust or foreign matter which may enter with the gas. Thus only clean gas is supplied to the regulators. The gas leaves the scrubber through the 2-inch pipe near the top of the chamber and is conducted to the high pressure regulator which steps the pressure down to 25 pounds per square inch, after which the gas enters the center one of the three horizontal chambers. From this volume tank the gas passes through either of the two low-pressure regulators which step the pressure down to 6 ounces from which it is conducted to the two volume chambers supplying the engines. As may be seen in the cut, the three volume tanks are connected together by welding 4-inch spacers between them on one end and by a section of structural steel on the other. The ends of the volume tanks are also cut off at an angle which, due to the rigidity with which the unit is constructed, allows the tanks to act as a skid to facilitate movement when rigging-up, tearing down, or moving.



Increased Boiler Efficiency Obtained by Constructing Enclosure to Reduce Radiation Heat Losses

While it is usual to think of New Mexico as one of the southwestern states where the temperature is usually relatively high there are times when cold winds blow from the mountains over the oil fields in the southeastern part of the state and the temperature drops to around zero. High winds, even though not very cold, blow in New Mexico frequently and such conditions are not favorable to oil field boilers. If these boilers are not protected in some manner the radiation of heat is high and the boiler efficiency low. The accompanying picture shows one means of reducing heat radiation to a minimum, using material easily obtained at the lease. The shed is well built and at the fire box end ample room is provided for the fireman. These boilers have superheaters and the live steam passes through a steam trap placed close to the engine and pumps to remove condensates. The water available is of good quality and does not need treating before being fed to the boilers. Heat losses from scale formation are negligible so that by reducing the heat lost by radiation and convection the boilers can be operated with relatively high efficiency. The rig shown is at a Humble Oil and Refining Co. well in the north end of the Eunice field in New Mexico.



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- Concentrically loaded wide-flange corner columns
- Ample cellar clearance of 12′ x 6′ 5″ between rotary support column centers
- Adaptable to any type location
- Adequately braced to eliminate excessive vibration
- Welded corner columns for strength and rigidity
- *Conform to The Steel Derrick Manufacturers Association Standards*

THE first portable steel substructure was pioneered and developed by The Parkersburg Rig and Reel Company. For water or swamp locations their economy is generally recognized and, in areas where high gas pressures must be reckoned with, the convenience and safety of having the blow-out preventer readily accessible is apparent.

The new Parkersburg Type HA Substructure conforms to the standards of The Steel Derrick Manufacturers Association. It is outstanding in simplicity of design and ruggedness of construction and was the first substructure to utilize a concentrically loaded wide-flange section, applicable to A. P. I. anchor bolt locations. Fewer parts result in quick, easy erection.

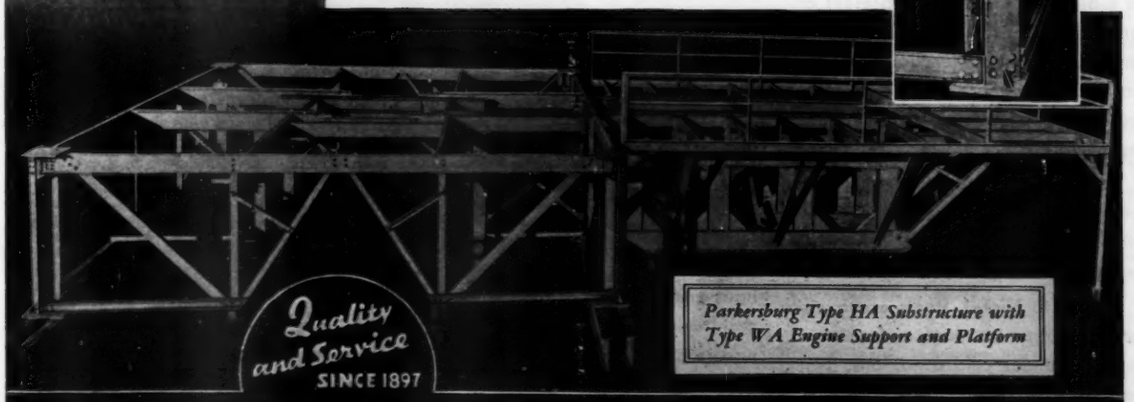
The Type HA Substructure is available for 24′, 26′ and 30′ base A. P. I. derricks.

SPECIFICATIONS

Size Base	Height	Capacity		
		Derrick	Casing	Drill Pipe
24′	7′ 3″	1,000,000#	300,000#	250,000#
26′	7′ 3″	1,000,000#	300,000#	250,000#
26′ Heavy	7′ 3″	1,000,000#	500,000#	250,000#
30′	7′ 3″	1,000,000#	500,000#	250,000#

Note: Drill pipe capacity may be increased to 350,000# by installation of optional supports.

Detail view of wide-flange corner column.



Parkersburg Type HA Substructure with Type WA Engine Support and Platform

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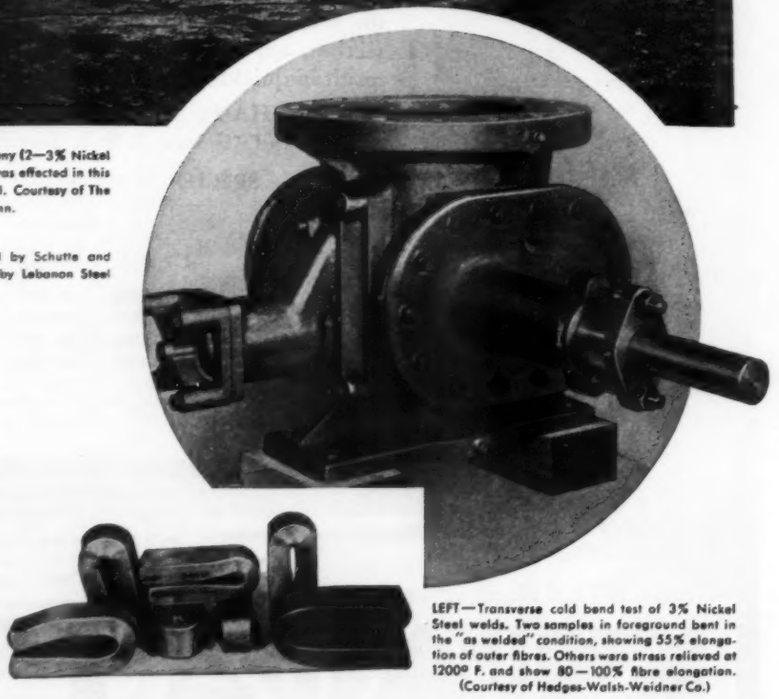
Resists low-temperature embrittlement...

this refinery equipment of NICKEL STEEL

ABOVE—Welded pressure vessel used by a leading oil company (2—3% Nickel in both plate and welds). A saving of 33,000 lbs. in weight was effected in this vessel by using 3% Nickel Steel plate in place of carbon steel. Courtesy of The Hedges-Walsh-Weidner Co., Chattanooga, Tenn.

• • •

RIGHT—Low temperature oil refinery pump manufactured by Schutte and Koerting Co., Philadelphia, Pa. 2% Nickel Steel castings by Lebanon Steel Foundry, Lebanon, Pa.



LEFT—Transverse cold bend test of 3% Nickel Steel welds. Two samples in foreground bent in the "as welded" condition, showing 55% elongation of outer fibres. Others were strass relieved at 1200° F. and show 80—100% fibre elongation. (Courtesy of Hedges-Walsh-Weidner Co.)

REFINERY EQUIPMENT operation under low temperature conditions is subject to hazards not present at ordinary temperatures. Oil dewaxing processes and refrigeration are typical examples where equipment is exposed to temperatures as low as 75° below zero F.

While exposed to sub-zero temperatures, carbon steels and many alloy steels lose their toughness, or resistance to shock.

Thanks to Nickel, steels are available which remain tough and resistant to shock under cold conditions. Not only in tests, but in practical service, nickel steels have demonstrated their suitability for refinery equipment operating at low temperatures.

The toughening effects of Nickel at low as well as atmospheric temperatures are shown in both wrought and cast steels. The commercial nickel steels also respond readily to the usual processes of fabrication, including welding. They are therefore finding, increasing application in welded pressure vessels, seamless tubing, pumps, etc. ...The services of our development engineers are always available to you on request, in connection with your problems concerning materials for refinery equipment.

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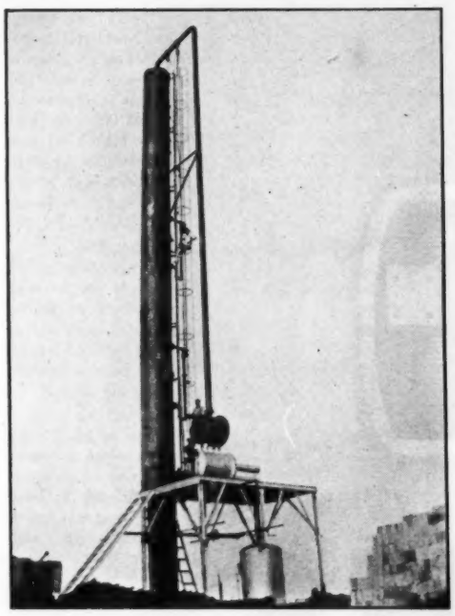
New Refinery at Pettus Equipped for Manufacturing Special Naphthas

By GEORGE WEBER

Special equipment to facilitate the making of special naphthas has been incorporated in the plant setup of the new Mathis, Tex., plant of the Pettus Refining Co. A 30-plate fractionator especially adapted to close fractionation allows a wide range of normal operating conditions.

The manufacture of regular and special petroleum products is becoming adjusted to a normal operating program in the new plant of the Pettus Refining Co. at Mathis, Tex. Prime purpose of the recently completed refinery is to serve domestic demand for gasoline, fuel oil, etc. In addition, however, special equipment has been incorporated in the plant set-up to facilitate the making of special naphthas and other light cuts to specification orders.



View of the erected fractionator with vapor system being installed

The refinery was designed to process crude from the Dinero field, located in Live Oak County a short distance from the town of Mathis. This crude averages 47.2 gravity at 60° F. and is produced from the Hockleyensis horizon at a depth of about 4,380 feet. The crude has a viscosity of 33 seconds Saybolt at 100° and a pourpoint of 35°. The sulfur content runs as low as .11 per cent. A detailed breakup is shown in the accompanying laboratory analysis.

Product—	Per cent	Gravity
Gasoline	47.4	56
Kerosene	21.2	40.6
Gas oil	9.7	34
Nonviscous lube	7.3	34
Medium lube	2.8	30
Viscous lube	2.8	26.5
Residuum	5.5	15

In actual plant operation, the lube cuts are disregarded, and drawn off at the base of the tower with the residuum. Roughly, the following cuts are made at the refinery: Gasoline, 48 per cent; kerosene, 24 per cent; gas oil, 10 per cent; residuum, 16 per cent with allowance of 2 per cent loss. The high percentage of light ends in the crude makes it well suited for gasoline and solvent manufacture, the latter product finding an extensive market throughout the Southwest.

The refinery is of the skimming or topping type, with capacity for processing 1,000 bbls. of crude per day. Crude is passed through the tube still in two stages. After preheating in gasoline and kerosene run-down exchangers, the crude enters the convection section of the furnace, where it is heated to a temperature of approximately 300° F. It then passes through an exterior devaporizer to remove light ends. The vapors from this separator are conducted directly to the tower. The topped crude returns to the furnace, where it passes through the radiant section, emerging at 575° and charging to the feed plate of the fractionator.

The fractionator, a Vulcan product, measures 4 feet in diameter and 74 feet in length, comprising 30 bubble plates. It is equipped with two steam stripping sections of the exterior type. These features combine with efficient reflux and temperature controls to make possible a wide range of operating conditions. The unit is especially adapted to the close fractionation required in the manufacture of special narrow-range boiling point naphthas. Special runs of specification products have just begun at the plant, and the possibilities of the unit for this purpose have not yet been thoroughly investigated.

The two top cuts from the tower are passed through crude heat exchangers in addition to the water coolers in all run-down lines. Bottoms are passed countercurrent to the boiler feed water. The run-down house contains 11 pumps, not including the 6½"x4½"x8" crude charging pump. Storage on the refinery site totals 7,500 bbls. Besides adequate tankage for gasoline, fuel oil and crude, storage is provided for the special products which may feature this plant as the demand increases.

Construction scene showing erection of the specially equipped fractionator

At present, the crude is trucked in from the Dinero field, but plans call for the installation of a pipe line connecting field and plant, should future increased production justify such a line. Pettus crude is also being run in the plant, holding operations to the capacity mark. A plant crew of four is required, headed by Roy W. Machen, superintendent, who has had considerable experience in refinery and natural gasoline plant design and operation.

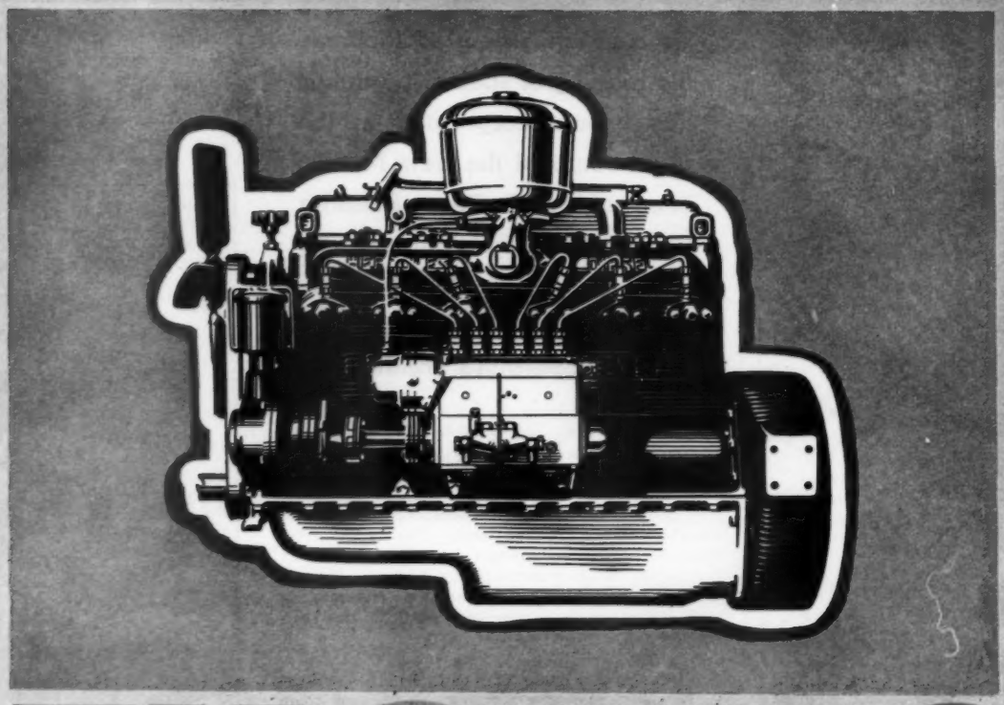
Erecting 74-ft. fractionator at site of the new Mathis, Tex., plant of Pettus Refining Co.

A.P.I. Issues Test Code

A tentative "Code No. 27, Standard Procedure for Determining Permeability of Porous Media" has been published by the American Petroleum Institute as the work of the Topical Committee on Development and Production Research under the sponsorship of the Institute's Division of Production Central Committee on Drilling and Production Practice. The first edition consists of three sections respectively covering definitions and theory, measurements and calculations, and laboratory procedure. Bibliographical references also are presented.

The purpose of the code, as explained in the foreword, is to facilitate comparisons and coordinations of permeability measurements on porous media as made in various laboratories by the adoption of uniform notation and dimensionally equivalent units. It is the further purpose to define the conditions of test and to point out sources of error commonly encountered. It is hoped to insure that reported values are free from inaccuracies caused by faulty methods and improper conditions of tests, rather than to attempt to standardize the detailed technique of measurement. Copies of the code are available from the Institute's New York and Dallas, Tex., offices.

HERCULES



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Like the larger and more powerful DHXB and DRXB Hercules Diesels, these small Diesels are characterized by clean, compact design, and remarkably complete combustion which means unusual performance ability. They are the smallest six cylinder, high-speed, heavy-duty Diesel engines built in the United States today and are interchangeable in mounting dimensions with the extensively used JX Series of Hercules gasoline engines.

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Petroleum Solvents Used to Remove Paraffin Deposits in Flow Strings

By HAROLD K. IHRIG

The rapidity with which paraffin is deposited in tubing and casing in flowing wells in the Oklahoma City field has been a source of trouble to most every operator in that field. The trouble is most apparent in those wells produced by gas-lift. The means by which one of the major operators overcame this obstacle by the removal of the paraffin in an efficient manner is described briefly in this article.

The use of high-gravity petroleum solvents for removing paraffin from the flow strings of oil wells is producing favorable results in the Oklahoma City field.

The paraffin problem has grown in severity as the field lost its identification as one composed of wells yielding oil in large volume, under high pressure and high velocity to one in which gas-lift and various other artificial methods are required to bring the oil to the surface. Paraffin deposition has frequently reduced the natural flow to such an extent that production actually ceased. The use of gas-lift has served to accelerate paraffin troubles also. Wax usually forms in the top 1,500 to 2,000 feet of the hole, but an accumulation may be found wherever there is a cooling action, such as caused by the expansion of the gas, or where the gas tends to come out of solution as the oil and gas mixture rises to the surface and as the hydrostatic pressure is reduced.

The frequency of solvent treatment of the well along with the quantity and method of application varies with each well but is usually determined by the volume of production from the well in question. The time for treating is usually determined by the rate of decline in the volume of oil produced, and in cases of gas-lift wells, the change in the gas-oil ratio serves as an index.

One of the largest operators in the Oklahoma City field is using the solvent method of paraffin removal generally on its wells. Its method of treatment is to pump the solvent into the hole and in case of gas-lift wells, to surge this fluid up and down the hole several times to permit washing the flow string along its entire length. This solvent, a product of natural gasoline plants in the field, has a vapor pressure of 26 pounds, and is transported in tank trucks having fluid capacities ranging from 1,000 to 1,600 gallons. These tanks are equipped with relief valves, adjusted to hold any pressure the operator may desire to carry.

The accompanying photograph shows the method of connecting the vapor pressure system to the several compartments of the tank and also the pressure gauge, pressure relief valve and bleeder valves for controlling the pressure. The pump, hoses, suction and discharge connections, with the pump by-pass are clearly shown.

The pump shown on the side of the truck is a 6x4x6 duplex steam pump, and is the type used on most treating outfits where high pressures are not needed. Power for this pump is taken from the high-pressure gas-lift system which reaches nearly every well in the Oklahoma City field. Should high-pressure gas not be available, steam is used, and in the event neither is convenient, a power pump is used.

In treating wells, the solvent is applied by one of two different methods depending upon whether the annular space between the tubing and casing is to be treated or whether the inside of the tubing is to be cleaned. If the well to be treated is producing through the tubing the solvent is pumped into the tubing and after it has had an opportunity to reach the bottom of the string the well is put on production until the fluid reaches the top of the hole. The well is then shut in and the slug of solvent is driven down the tubing past the accumulation of paraffin, after which the solvent is again brought to the surface. This cycle is followed through three times and the well is then put on steady production.

Treating in the annular space, as is done on most wells, from 1,600 to 2,000 gallons of the solvent are used per well.

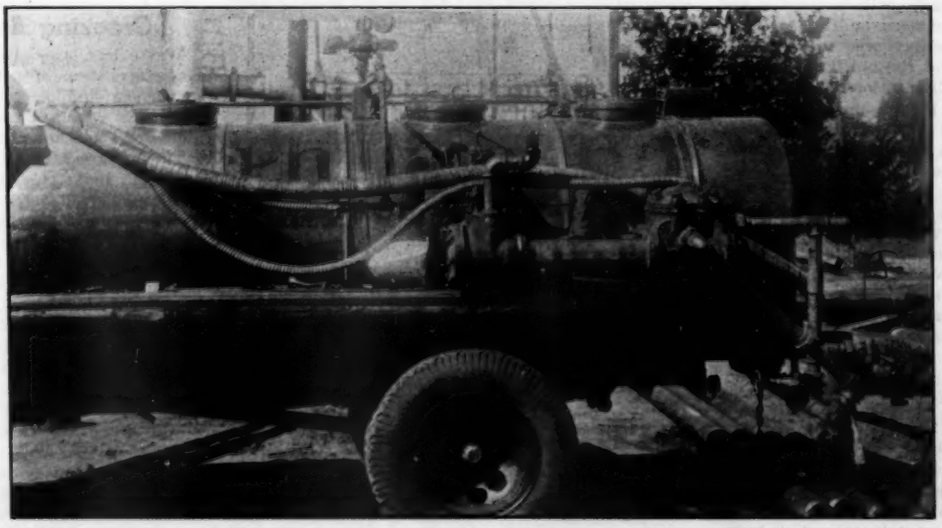
The truck is first conveniently spotted near the well to allow connecting the high-pressure hoses, carried on the truck, to the well head and to the high-pressure gas line for pump power. After this is done the fluid is pumped down the hole, but in most cases the weight of the fluid column in the casing creates enough vacuum to pull the solvent from the truck tank. At this point the pump is by-passed and the solvent is siphoned, so to speak, into the well.

The usual time required for dumping sufficient solvent into the well varies from 40 minutes to one hour, depending, of course, on the quantity needed. One hour after the solvent has been put into the well, gas is turned into the tubing and the well is kicked off. When the flow reaches the top of the casing the well is shut in and the fluid is allowed to go back to bottom. After lapse of another hour the well is again kicked off. This procedure is followed until the well has been kicked off the third time, when it is put on steady production. The frequency of treatment varies with each well, depending upon the method of production, the quantity of oil produced and the regularity of production, but the usual demand is from one to four treatments per month per well.

The approximate costs involved in this method of paraffin removal are readily obvious in that one truck with a crew of two men can treat from two to four wells per day, depending upon the location of the wells with respect to the supply of solvent, and the accessibility of the well. After the solvent has been dumped into the well the truck and crew are free to leave for another treatment as the regular switcher or pumper then takes the responsibility of "rocking" or kicking the well off through the above-mentioned procedure.

One disagreeable feature in this method of removing paraffin is that a considerable quantity of the wax removed from the well is not in solution in the solvent or the fresh oil from the sand and on being put into the tanks with the oil it promptly settles to the bottom to build up "tank bottoms." Disposal of these "bottoms" is handled in several ways. The operators may treat them in an effort to get the paraffin into solution in the oil, or draw them off for disposition.

Tests have been conducted in an effort to determine if the addition of the solvent to the production of the well has any tendency to cause an increase in the gravity of the oil in the tanks. Very little, if any, change has been noted, as the high gravity of the solvent is changed in taking a great quantity of the paraffin into solution. The only possible loss to be incurred in this method of treatment is that sustained in a case where the tank must be cleaned to dispose of the accumulated paraffin. In summarizing the use of petroleum solvents for removing paraffin from flow strings it may be said that all solvent put into the well is returned in the form of marketable oil; the tubing or the annular space of the well is again opened for maximum production; the short period of down time is not objectionable; regular production is made steadier and, in the gas-lift case, is cheaper because of the lower ratio of input gas to oil recovered, and if well is flowing naturally less back pressure is held on the producing formation.

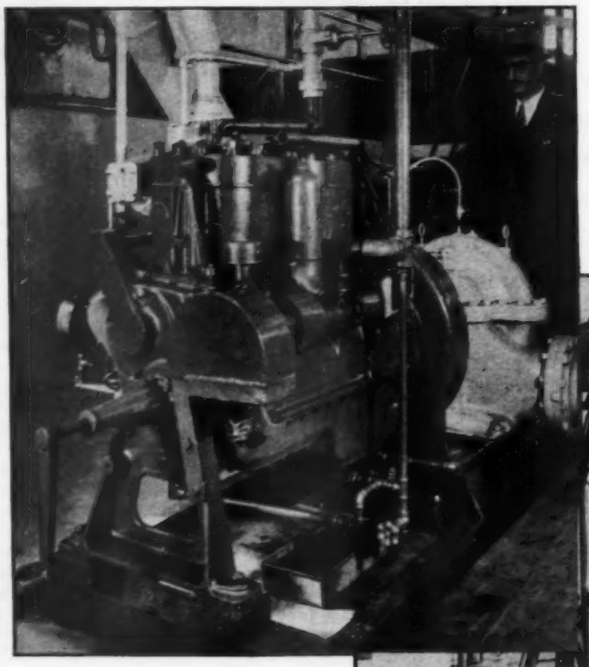


Tank truck equipped with low-pressure pump and hoses used in paraffin removal treating

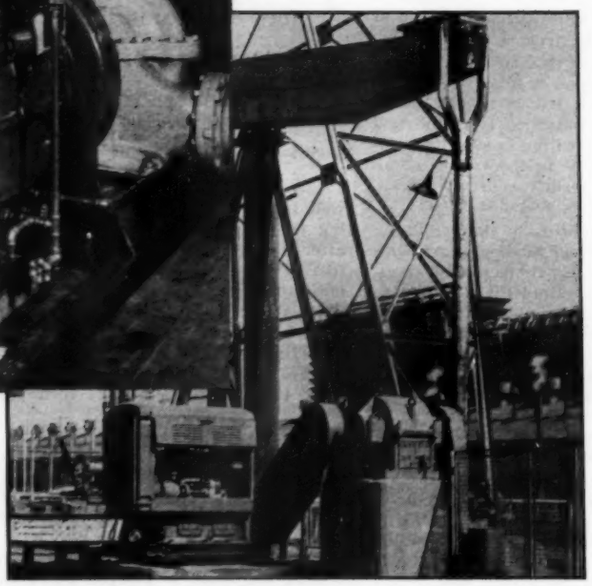
Multi-Clyinder Gas Engine Maintains Prominent Place in California Fields

By L. P. STOCKMAN

About four years ago, Union Oil Co. installed a multiple cylinder gas engine unit, direct connected to a centrifugal pump, for use in circulating cooling water through a number of large gas engines and compressors in its Bell compressor plant in the Santa Fe Springs field of Los Angeles basin. In as much as the use of gas engine drive in this manner was somewhat of an experiment, which has since proven very satisfactory, it might be of interest to review the possibilities of the small gas engine in oil field practice. The early model single cylinder gas engines, many of which are still in use for pumping wells, were rather cumbersome and inflexible and were not at all suited for gearing to high speed units, but notwithstanding that the gas or gasoline engine was being developed rapidly in other fields, particularly in the automotive industry, its adaptation to more general use in the oil industry was very slow. It was largely through experimentation by oil operators that the multiple cylinder high speed gas engine was developed and was ultimately established as an efficient, dependable and economic unit for a wide diversity of uses in the oil fields.



Four-cylinder gas engine in Union Oil Co. gasoline plant in Santa Fe Springs. C. J. Rector, gas superintendent of the southern division, in background



Multi-cylinder gas engine pumping a well in the Santa Fe Springs field of southern California

During the long period that elapsed between the drift from the old single cylinder engine and the development of the modern multiple cylinder engines, considerable headway was made in the study of motor drives, and the electric motor became a very important institution in the operation of well pumps, line pumps and other equipment. The motors were exceedingly simple to manipulate and the direct drive made the installation very much more compact than the old one-cylinder gas engine with its bandwheel and belt drive. Altogether there is no question that motor driven equipment was a wide step in advance of the early gas engine hook-up. While the motor was finding its place, however, oil field engineers had by no means abandoned the gas engine, and many more or less independent investigations were being conducted to determine the adaptability of this type of power. The present day multiple cylinder engine was the direct result of these efforts, and it has now become a potent factor in oil field operation, especially in California.

The Union's installation in the Bell compressor plant was a 5½ by 6½-inch gas engine, which after more than four years of constant operation is still functioning and meeting all requirements. It has only had one involuntary shut down during this period, due to a burned out magneto condenser, and including this stoppage its total inoperative time has only been 10 days, most of which was consumed in the ordinary routine of oil changing, motor tuning, valve grinding and other reconditioning work. During practically all of its active existence, the little gas engine was operated at a speed of 1,050 r.p.m., keeping the cooling water in constant circulation at the rate of 1,325 to 1,765 gallons per minute, against a head of 91 to 100 feet, actually developing an average of about 46 b.h.p. with a fuel consumption of approximately 11.5 cubic feet of 1,100 b.t.u. gas per b.h.p. This represents a 20 per cent overall thermal efficiency.

The use of the multiple cylinder gas engine as a power unit in well pumping, auxiliary units in plants and various other drives is increasing, due perhaps to the more efficient and economical operation of this engine over the older type single cylinder gas engine, and the compactness of the completed engine and transmission installation and housing.

The success of this experiment, and others of similar character, which were carried on under the supervision of C. J. Rector, gas superintendent, southern division, Union Oil Co., demonstrated very effectively the adaptability of the multiple cylinder gas engine, and the results are responsible for the introduction of this type of engine for new uses in the field, particularly for well pumping. To grasp the tremendous change which this departure means, it is only necessary to glance at a trim modern gas engine well pumping installation, and then contrast it with the old hookup, consisting of a single cylinder gasoline unit, with its belt driven bandwheel and all the other equipment that is incidental to its operation and housing. The operating cost of the new installation is low and in as much as it is almost as compact as the motor driven unit, it has an additional appeal to the oil operator because of the fact that it derives its power from petroleum products.

Cracking Reduces Wastes

Waste has been eliminated to such an extent in the operation of petroleum refineries employing modern equipment that the volume of refined products is within a fraction of 1 per cent of the volume of crude oil run to refinery stills!

This progress is revealed in a survey of the petroleum industry's accomplishments made by American Petroleum Institute committees. They reported that efficient refining reduces the amount of crude oil required to supply a given volume of refined products, and therefore contributes substantially to conservation of the nation's petroleum reserves.

Development of the "cracking" process for producing gasoline was cited as one outstanding accomplishment in the refining field. Heat and pressure are applied to the larger molecules comprising the heavier portions, or fractions, of crude oil, virtually "cracking" them into the smaller molecules which make up the lighter fractions, such as gasoline.

"Cracking alone has produced since 1920 an amount of gasoline which without cracking would have required 6,600,000,000 bbls. of crude," the report explains.

Pure Oil Company Outlines Position Regarding Use of Polymerization

By C. R. WAGNER
Pure Oil Co.*

Recognizing the immense future commercial possibilities opened by the application of polymerization to routine oil refining, various units within the petroleum industry who have been close to this work have offered to state their positions. In the accompanying article, C. R. Wagner, chief chemist for Pure Oil, states the position of his company.

Within the last 12 months hundreds of thousands of words have been written about the oil industry's latest sensation—Gas Polymerization. Gas Polymerization may be defined as the process of producing normally liquid hydrocarbon products from normally gaseous hydrocarbons of low molecular weight. The petroleum division of American Chemical Society held symposia on the subject at the April meeting in New York and at the San Francisco meeting in August. The American Petroleum Institute at Tulsa in May and at Los Angeles in November listened to papers and discussions on the same subject.

In view of this situation The Pure Oil Co. feels that its duty to its stockholders and employes and to the industry demands a statement as to the position of The Pure Oil Co. in this new field. After a period of quiet laboratory investigation and experimentation a small unit was constructed early capable of producing a few gallons of product per day. As long ago as the fall of 1930 an installation was constructed capable of producing 100 bbls. per day of polymer gasoline. Since that time larger units have been constructed and further startling developments effected. By following an aggressive development policy The Pure Oil Co. is not only the first company to commercialize the synthesis of motor fuel from olefinic gases, but is also in a premier position with respect to its patent protection. It is confidently stated by experts in the field of patent law that under these circumstances it has been decided to offer to the industry Pure Oil Co. polymerization process at a reasonable royalty rate. Arrangements have been perfected with Alco Products Incorporated, a division of the American Locomotive Co., whereby Alco will act as a licensing agent and as a designer and builder of the equipment used in the process.

Due to the extreme flexibility of the process developed by The Pure Oil Co. it is possible to handle almost any gas produced in the refining of crude oil or the manufacture of natural gas gasoline. The usefulness of gases as charging stocks increases with increasing molecular weight and with decreasing hydrogen content. At the risk of being considered technical the following table lists the gases commonly occurring in refinery waste gases or in natural gas gasoline plant residues.

Analyses of Cracked Gases

	Name	Formula	Molecular Weight
Paraffins	Methane	CH_4	16
	Ethane	C_2H_6	30
	Propane	C_3H_8	44
	Butane	C_4H_{10}	58
	Isobutane	C_4H_{10}	58
Olefins	Ehtylene	C_2H_4	28
	Propylene	C_3H_6	42
	Butene-1	C_4H_8	56
	Isobutene	C_4H_8	56
Diolefins	Butadiene	C_4H_6	54

Of these gases methane (the main constituent of natural gas) is the most difficult to utilize in a polymerization process. Those easiest to convert into useful liquid products are the olefins and diolefins occurring in refinery gases. In order to handle satisfactorily the paraffins at least two hydrogen atoms must first be split off each molecule so as to produce an olefin. Such olefins can then be polymerized under the proper conditions of heat and pressure to produce liquids boiling within the motor fuel distillation range. A small amount of higher boiling material is usually produced also, depending upon the conditions under which polymerization is effected.

The character of the products produced depends upon the conditions employed in the polymerization process. A catalytic process now available for operation at low temperatures and pressures produces a product that is essentially unsaturated and which contains little material distilling below 150°F., although it has an octane number of about 80 (A.S.T.M.) By means of The Pure Oil Co. process it is possible to produce a motor fuel of any characteristics between the two extremes tabulated below. These products were actually produced from the same types of gas by varying the temperature and pressure to which the gases were subjected.

A very interesting possibility and one of particular significance in view of the European war clouds is the manufacture by The Pure Oil Co. process of pure aromatic hydrocarbons heretofore readily available in quantity only from the by-product coke oven. During the World War benzene sold at prices as high as 80 cents per gallon and toluene reached a price of $3.60 per gallon in tank car lots. At the Chemical Exposition in New York City, December 2 to 7, The Pure Oil Co. is exhibiting among other things samples of benzene, toluene, xylene, and naphthalene of high purity manufactured from refinery gases by polymerization. Some hundreds of barrels of such products have been made in this manner and the material is being submitted to a wide variety of customers for comparison with their regular products secured from their normal sources of supply. The petroleum industry is thus brought a step nearer to the chemical industry to whom crude oil offers an inexhaustible supply of raw material.

The question naturally arises: "What does this process mean to the average refiner?" In the case of the average refinery operating a complete refinery and charging a crude similar to Mid-Continent, polymerization will increase his gasoline yield by more than 5 per cent on the crude charged, decreasing his fixed gas production by slightly more than an equal amount. If all refinery gases in the United States could be so processed, there would be produced about 30,000,000 bbls. per year of 85-100 octane gasoline or nearly 7 per cent more gasoline than is now being produced. The effect of this startling development upon aviation and upon high compression automobile engine design can only be conjectured. It is certain, however, that, in addition to making available to the refiner a new source of profitable revenue, The Pure Oil Co. has contributed largely to the security of the nation and to the maintenance of America's front rank position in aviation.

Effect of Changing Pressure

	High pressure—Low temp.	Low pressure—High temp.
Gravity, °A.P.I.	56.5	33.3
Color, Saybolt	25	25
Octane No. (A.S.T.M.)	78	99
Vapor pressure, lbs./sq. in.	10.0	3.0
Sulfur, per cent	trace	trace
Initial, °F.	92	144
10 per cent	128	185
20 per cent	146	194
30 per cent	166	201
40 per cent	182	210
50 per cent	201	218
60 per cent	222	232
70 per cent	248	250
80 per cent	280	280
90 per cent	328	340
Endpoint	398	417

Oil Mining Next?

An exposure of bituminous sands 130 feet high stretching along the side of a tributary of the Athabaska River in Alberta, Canada, from which the Research Council of Alberta has been able to recover substantial quantities of oil by the use of hot water flotation

* Taken from "Pure Oil News."

Modern Trucking Operations Minimize Time in Moving Rotary Equipment

By L. G. E. BIGNELL

There was a time when the efficiency of the canvas and stake men of the circus or road show was the criterion by which the organized effort of any crew of men was gauged. Every movement required to take down and put up the tents and place the paraphernalia making up the show was scheduled and timed so the minimum of effort was expended and the maximum of results obtained.

While it may be a far cry from the circus to the oil industry there has been introduced into the drilling departments of this industry a system of rigging up and taking down equipment which may be likened to the showman's efficiency. The main difference lies in the methods and equipment used by the drilling contractors in moving their heavy machinery. Successful drilling contractors and many of the larger operating companies have so worked out the schedule of moving and rigging up operations as to now be able to move hundreds of thousands of pounds of material from warehouse to rig or from location to location in remarkably short space of time.

This refinement in moving operations has been brought about by the need for quick rigging up and drilling of wells. It is very desirable the drilling equipment be in active use as much of the time as possible because when it is idle the investment of many thousands of dollars is not earning money for the owners. If the rigging up time is long the cost comes out of the drilling contractor's pocket for he is only paid for making hole and any saving he can effect either in rigging up or in dismantling his rig means a saving to him and can easily, in some instances, represent the difference between profit and loss on the contract.

By working out a moving schedule many extra and unnecessary parts have been eliminated from the rig inventory and at the same time every essential piece of apparatus is at hand when needed. Every operation on the rig is scheduled and from spudding in to washing in the crews follow a definite procedure. This method not only insures efficiency but tends to promote safety. Each shift being trained to follow the same schedule of operations eliminates lost motion and duplication of effort.

These improvements in setting up and dismantling rotary and cable tool rigs are being practiced in many fields in this country and abroad. This article will deal with operations in Lea County fields in southeastern New Mexico where heavy rotary equipment is used and is being quickly moved from place to place through sand dune areas with a briskness quite noticeable to the outsider who finds it hard to even drive his car through these sandy wastes.

The Oil Well Drilling Co. with headquarters in Hobbs, N. Mex., has several rotary outfits in active operation in the several oil fields in Lea County and in other parts of New Mexico and West Texas and is so equipped with trucks and winches as to be able to move all of the drilling equipment for a 4,000-foot well in about 12 truck loads.

As the steam boilers are first needed at the location in order they may be set and connected with water supply and steam lines run to the engine and pumps they are the first pieces of equipment to be moved.

To handle these boilers and other heavy equipment this company has a battery of four trucks. These trucks are rated at 3-, 5-, 7- and 9-ton load capacity and each fitted with a heavy duty crane or gin pole mounted at the rear end of the truck body. Hung in each crane is a heavy duty block and the hoisting lines pass through this block and to the drum of a winch mounted directly back of the driver's cab.

Modern drilling operations contemplate the standardizing of parts used on the rig and scheduling of moving operations so that rigging up and dismantling can be done in the minimum of time. Special trucks and equipment play an important part in these operations and result in appreciable savings to drilling contractors and oil producers.

Multiple lines are used as needed for moving the very heavy pieces of equipment used on these rotary rigs. Usually two trucks will back into a position on each side of the piece of equipment to be handled and swing it into the air high enough to permit a third truck and trailer to back under the piece of machinery. This procedure applies equally well to loading truck or truck and trailer. After the truck is loaded it is still possible for the crane and winch mounted on it to be used in loading other trucks, and the same is true in the unloading operation when destination is reached.

Not only is the crane so arranged so to permit of its use in loading other trucks but equipment can be swung to the bed of the truck upon which the winch and crane is mounted. With this flexibility of movement built into these four trucks the job of moving and placing rotary equipment has been standardized. To secure some idea of how efficient these operations are it is common practice for these truck drivers to load a 7¼x14½x20-inch heavy duty steam-driven slush pump weighing 22,600 pounds onto one of the trucks in about 10 minutes. The pump can be unloaded and placed upon its foundation at the rig in about the same time. Not only is the part unloaded from the truck but it is placed accurately in its proper position with relation to the rig and all other pieces of equipment.

This later feature is quite essential for in minimizing on parts the drilling contractor has built manifolds for piping for handling either steam, fuel or water and it is therefore necessary each piece of equipment be placed in the proper position so the pipes can be laid between manifolds without extra fittings. The relation of steam boilers to slush pumps and steam engines is definitely established and the pipe cut to fit between the pieces of equipment and it is therefore easy to understand why these heavy pieces of machinery must be accurately set if speed in rigging up is to be maintained.

The usual power plant used in New Mexico oil fields consists of three 125-horsepower 350-pound working pressure oil country type boilers weighing about 35,000 pounds apiece complete with stacks and fittings. To move the boiler either the 5-, 7- or 9-ton truck is used with its trailer. Two of these heavy trucks back up into a position where they can lift the boiler from the ground and the third truck then backs its trailer under the boiler and it is lowered to the truck body and onto the trailer.

When the first boiler is loaded this truck helps load the other two outfits and then all three loads proceed to destination and unload and spot the boilers in their new positions. The light 3-ton truck accompanies the three heavier trucks and carries stacks, steam and water lines and other small parts.

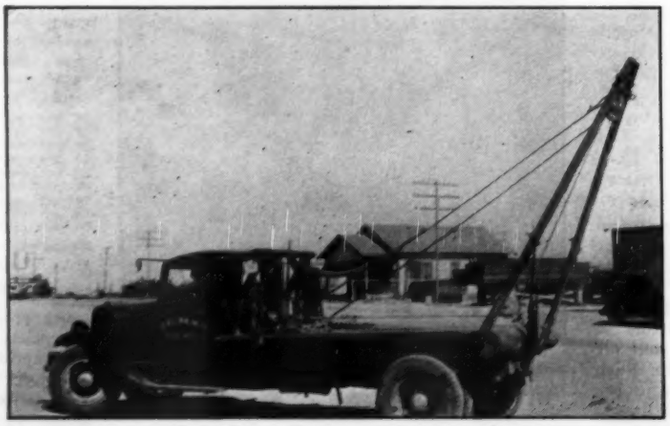
To both facilitate handling and fitting up it is common practice to mount the feed water pumps, electric generator, manifolds, lubricators, gas regulators and feed water heater upon a common structural steel base. This equipment will weigh about 12,000 pounds and is handled in one load with truck and trailer.

The 12x12-inch steam engine is the next load for the 9-ton truck and trailer along with the jack posts, jack shaft and line shaft for the rotary drawworks. All of this equipment weighs about 18,000 pounds.

There are two 7¼x14½x20-inch stroke steam slush pumps to be handled and they each make one load of about 22,600 pounds for truck and trailer. One of these heavy trucks usually carries the drawworks drums along with one of the pumps. The other truck trailer carries the rotary, turntable and swivel.

This about completes the movement of the several pieces of heavy machinery and it has been handled in eight truck loads and all placed in proper relation to derrick and all other equipment so the drilling crew can proceed to rig up without delay.

In from four to five other truck loads the balance of the equipment is moved. The traveling block weighing about 10,000 pounds, along with the



Heavy duty truck equipped with gin-pole or crane and winch used in handling heavy equipment in Southeastern New Mexico.

hooks, lines and derrick crown block weighing an additional 5,500 pounds is moved as a body load for one of the heavy duty trucks.

The 3,000 feet or more of 6-inch drill pipe with some small stuff is moved on another truck and trailer.

To facilitate handling and keep small parts together it is usual to use a steel tool box and a steel tool house and these two pieces are moved as a body load on the 3-ton truck.

Additional drill pipe, Kelly, reamers, collars and other miscellaneous material will make up one or two additional truck loads and complete the job which under ordinary circumstances and moving a nominal distance will all be done in one eight-hour working day.

It is common practice in New Mexico to set the steel derrick on a 6- to 7-foot high steel structure which necessitates the lifting of the drawworks, turntable, drilling engine and other parts needed on the derrick floor from the truck beds to the top of the substructure.

In addition to having worked out a satisfactory means of handling and moving this heavy equipment the drilling companies pay special attention to the painting and cleaning up of this material. It is common practice to have all machinery painted in standard colors so the rig is easily recognized. This added care is well worth while for keeping the machinery painted and cleaned gives the operators a good opportunity to examine all parts for wear and the life of the equipment is thereby lengthened.

Device Measures Effectiveness of Pipe Line Coating

An electrical device for determining the condition of coatings on buried pipe lines without the necessity of uncovering the pipe has been undergoing a series of tests on sections of several lines on the Gulf Coast. It was invented and developed by A. L. Smith of Houston who, in conjunction with Crutcher-Rolfs-Cummings, Inc., has been conducting the tests. Results of the tests have been marked with success, and various uses for the device other than checking coating faults have been indicated.

The device includes a high frequency transmitter, and a receiving instrument for measuring electrical flux density. The transmitter, one terminal of which contacts the pipe and the other connects with a ground rod located some distance to the side of the line, charges the pipe. The receiving instrument, which is light and portable, is carried along the line and, through a ground contact made at desired intervals, reacts to current discharges from the pipe in proportion to the current density in the soil around the pipe.

Density of the current flux at any point is directly dependent on the insulating effectiveness of the coating, the presence of holidays and the distance from the point of transmitter contact. The receiving instrument covers a wide range of sensitivity through variable steps to detect the slightest changes in flux density. As there can be no standard, all readings on a line are relative.

It also will be possible for pipe line companies to determine in advance of pipe laying the corrosive areas on proposed pipe line rights of way, and such areas either can be avoided or more adequate protection for the pipe can be applied through such spots. To determine such corrosive areas the instrument utilizes the principal of two ground rods for imposing current on a proposed right of way.

Similarly in consideration of cathodic protection for sections of pipe lines, the instrument will serve to check conditions of coating in respect to conductance, and determinations can be made as to the amount of current required for protection of a line. With such information, operators will know the economies as to the cost of current in comparison with the cost of recoating a line.

In application of cathodic protection, the procedure can be used to determine the point of ground beds to obtain the utmost distribution of current. It always has been found best to place the ground bed, the output side of the DC source of current, opposite the best-insulated section or area of the line to get the utmost distribution. Ground beds opposite a badly-coated section have proven there is relatively high inefficiency due to current saturation directly opposite the ground.

Oil leaks or "collar sweats" on bare lines not visible on the surface also can be located by the instrument. Leaks that do not show up on the surface generally saturate the soil immediately surrounding the pipe, and this acts as a fairly good insulator to current. Readings on the receiving instrument run relatively high on bare pipe, so the instant the instrument engages the soil above these oil-saturated areas there is a decided drop in the intensity of the reading due to the insulating factor.

A. L. Smith (left), inventor, and R. A. Brannon, Humble Pipe Line Co., Houston, making a test survey on a pipe line. Mr. Smith is carrying the receiving instrument

The transmitter instrument, like the receiving instrument, is portable, it being operated by small batteries. It is set up quickly and is effective for the receiving instrument for distances of as much as 500 feet or more of pipe either way. It is set up in successive stages as the receiving instrument is carried along the line.

Experiments now are being made to prove possible utilization of this new principle of measuring flux density in determining the geological nature of strata in drilling wells.

Dr. Egloff Elected Director

At a recent meeting of the American Institute of Chemical Engineers held in Columbus, Ohio, Dr. Gustav Egloff, of Universal Oil Products Co., was elected to the board of directors. Officers elected were Martin Ittner, president; Fred Zeisberg, vice president; and C. R. DeLong, treasurer. Other members of the newly elected board are Edward Barton, University of Iowa; Albert B. Newman, Cooper Union; and James G. Vail, of Philadelphia Quartz Co.

Manitoba Refinery

BRANDON, Manitoba, Nov. 30.—Central Refiners, Ltd., has been incorporated with head office at Brandon, and if planning construction of a refinery of 1,000 bbls. daily capacity.

Operation of Plant Is Maintained By Welding Sleeves Over Old Line

When a crude oil manifold in a large refinery recently threatened to give way and make necessary a material shifting in the operations of the plant, repairs were made by arc welding sections of larger pipe over the old and the entire job was completed without altering the normal operation of the plant.

In resleeving the manifold the pipe was uncovered and cleaned. Steel slabs in proper length were then cut from larger size pipe so that they would fit snugly over the pipe. The slabs were then welded in place.

In resleeving the bolted couplings the oversize pipe was cut in sufficient lengths to span the coupling and each end was notched to permit bending in to reduce the diameter to that of the outside of the new pipe covering the old. When these ends were hammered down, they were welded circumferentially to the new pipe and the edges of the notched out portions were welded together.

This job was done by the Lincoln process and required approximately 5,500 pounds of electrode.

The new protective sheath for this crude oil manifold was made by welding larger sized pipe around the old. This was done while the manifold was in use

The TIME, *the* PLACE *and the* NORVELL-WILDER MAN

Anywhere, at any time, a little accident in the oil fields can run into big money. Pump lines or valves gone haywire; a hose blown out; an urgent necessity for a packer; heavy draw works, swivel or power unit quickly needed . . . can cause dollars to drip away while waiting.

Norvell-Wilder men appreciate the monetary value of time in the production of oil. They realize that tools have no value until they are at the place where needed. Given the time and the place, the Norvell-Wilder man offers the shortest way out of expensive delays.

Norvell-Wilder men are working for you. Command them.

Norvell-Wilder Supply Company

QUESTIONS ON TECHNOLOGY

By Charles K. Francis, Ph.D., Technical Editor

Those connected with the refining of crude petroleum, the manufacture of natural gasoline and closely allied industries are invited to submit problems to Dr. C. K. Francis. Questions should give as much detail as possible. Inquiries must be signed but only the given initials will be printed. The source of questions is considered confidential. Questions requiring discussion of patents, the use of intricate formulas, extended computations, or cost estimates cannot be considered in these columns.

Types of Hydrocarbons Present in Straightrun Gasoline

Could you supply a list of the hydrocarbons contained in ordinary gasoline? As most gasoline of the better grade has a final boiling point of about 400°F., I would assume this kind of gasoline.—C. P. G.

The composition of gasoline varies with the kind of petroleum from which it may be obtained and the method of manufacture. An excellent treatment of the subject was presented before the American Petroleum Institute mid-year meeting, Tulsa, May 15, 1935, by Frederick D. Rossini, based upon his investigations under A.P.I. Research Project No. 6, at the National Bureau of Standards. The gasoline to be studied was separated from a Mid-Continent petroleum from Kay County, Oklahoma, and the portion studied which distilled between 55° C. (131° F.) and 145° C. (293° F.). This was redistilled to 1° C. fractions and the compounds present in these identified. The total compounds included paraffins, naphthenes, aromatics and bicyclics. These consisted of compounds actually isolated, those detected and in process of separation, and those whose presence is suspected.

The list is too long to be reproduced here. There were 23 paraffins ranging from C_5H_{12} to C_9H_{20}, including many isomers; 18 mono-cyclic naphthenes and isomers with formulas from C_5H_{10} to C_9H_{18} and six aromatics. The relative percentages were estimated to be paraffins 60, naphthenes 30, and aromatics 10 per cent. Five additional hydrocarbons were obtained from the next higher fraction, that distilling between 145 and 180° C. or a maximum of 356° F. Six lower paraffins, CH_4-C_5H_{12}, were also present in the gasoline.

Doctor Rossini suggested that unknown losses occurred during the process of separation so that figures representing the percentage content must be considered rough approximations only. The largest portions of the paraffinic hydrocarbons obtained, estimated as contained in the crude oil, were 1 per cent each of n-octane and n-nonane. No iso-octane was found. The high naphthenics were cyclo-hexane and methylcy clohexane, 0.3 per cent each. The highest quantity of an aromatic was 0.3 per cent of toluene.

While this work did not cover the entire boiling range of a 400° endpoint gasoline, enough was done to show the kind of hydrocarbons in the straightrun gasoline from the crude oil examined. A considerable change in kind of hydrocarbons may be expected in a cracked gasoline and even in a straightrun gasoline from a crude oil of different origin.

Specifications for Asphaltic Liquids for Road Building

Are there any standard specifications covering the several varities of liquid asphalt preparations that are used in road construction? When considering sales to a company operating in two adjoining states we are requested to meet two different specifications and test by different apparatus. Is there any way to average these?—F. P. S.

Uniform specifications for asphaltic road materials have not been adopted by all the states, but the U. S. Bureau of Public Roads issued several years ago, 1932, specifications for 13 asphaltic products. A summary of these was published in The Oil and Gas Journal, April 6, 1933, page 70.

A review of the conditions relating to specifications and methods for testing asphaltic materials, in the several states was presented before the tenth annual Paving Conference, New Orleans, La., December 5, 1933, which is reproduced in part. This refers to the conditions in 1932, which has not changed to any considerable extent.

Fifteen states follow the bureau methods for flashpoint. There are 28 states requiring the Saybolt Furol test for viscosity. Twenty-seven states use the approved method for the distillation test for cut-back materials. Loss by volatilization at 325° F. is in force in 25 states. Eighteen retain the obsolete test with naphtha for solubility.

It is impossible to average results obtained by one test method and apparatus with another or make conversions for specifications.

Expense for Making Gasoline by the Hydrogenation Process

Will you kindly supply me with the following information: What is the average cost of hydrogenating heavy oils? What is the average gasoline yield therefrom? If possible to supply, the itemized processing cost would be valued.—D.M.

The hydrogenation process for making gasoline from heavy oils is discussed in the chapter on this subject by Nash and Howes, Principles of Motor Fuel Preparation and Application, page 301. The economics portion is from the article by Aug. Kessler, Proc. World Petroleum Congress, London, 1933.

The capacity of the plant is 16,000 bbls. of feed per day, costing at the rate of $1.37 per barrel per day. The analysis of the operating expense is given in the table as follows:

HYDROGENATION PROCESS—OPERATING COSTS

	Item—	Cents per bbl., feed
1.	Steam	9.90
2.	Water	2.08
3.	Power	1.89
4.	Wages and salaries	6.09
5.	Repairs	8.22
6.	Catalysts and chemicals	9.10
7.	Overheads, 25% of items 4 and 5, 10% of item 6	4.46
8.	Insurance, 1% of $1.37	1.37
9.	Depreciation, 10% of $1.37	13.70
10.	Royalty	7.67
11.	Fractionating overhead product	5.46
12.	Treating gasoline	1.62
13.	Redistilling gasoline	0.35
14.	Gasoline recovery	0.35
	Total per barrel	72.57
	Or 1.73 cents per U. S. gallon of feed.	

The yield of gasoline is somewhat less than 100 per cent when high antiknock value is desired, but may approach 100 per cent if a gasoline of low octane rating is made.

References: V. N. Ipatieff, Early Developments in Hydrogenation, The Oil and Gas Journal. McKee and Szayna, Hydrogenation of Petroleum Oils, J. Inst. Pet. Tech., 17, 121, 1931.

Waste Rubber May Be Converted Into Gasoline and Lube Oil

A mention has been made in a newspaper of a process for making gasoline from rubber. Have you any knowledge of such a process?—H. E.

The manufacture of rubber from petroleum may be very nicely demonstrated on the back of an envelope but has not come to pass on a commercial scale. The chief difficulty appears to be the expense as compared with the low cost at which natural rubber has been obtainable in recent years and the low selling price of gasoline. The process of hydrogenation has been applied to the treatment of rubber for the manufacture of petroleum products. This may be of special interest for the processing of rubber waste, such as automobile tires.

The British Fuel Research Board has reported that rubber under hydrogenation cracking conditions, in the presence of a molybdenum sulfide catalyst at 450° C. (842° F.), yielded a distillate boiling below 200° C. (392° F.), representing 50 per cent by weight of the rubber. This was water white, practically free from unsaturated hydrocarbons, suitable for motor fuel without further refining except distillation.

At a temperature of 350° C. (662° F.) an oil resembling lubricating oil was obtained, but this was of poor quality.

It was found that the fractions distilling above 200° C. of the oil produced from rubber by hydrogenation dissolves rubber fairly readily, and that 50 per cent solution of rubber in this oil could be made without great difficulty. A method of operating a continuous process for the hydrogenation of rubber was therefore indicated. A 50 per cent solution of rubber containing 1 per cent of dissolved sulfur was prepared and treated in a continuous hydrogenation plant, in the presence of the molybdenum catalyst supported on alumina gel. The solution of rubber was forced into the plant continuously in exactly the same manner as in the treatment of low-temperature tar. The sulfur was added to the rubber solution in order that the molybdenum oxide would become converted to molybdenum sulfide during the process.

Crystal Pool of Michigan Produces High Quality Crude Oil

Will you kindly furnish us with an analysis of the oil from the Crystal Pool, in Michigan? —C. L. O.

The Crystal pool, so named from Crystal Township, Michigan, is producing oil from a depth of approximately 3,200 feet. The general quality is indicated in the analysis:

ANALYSIS OF CRUDE OIL FROM CRYSTAL POOL

Gravity	36.5° A.P.I.
Color	light green

	Per cent
Gasoline	30
Naphtha	10
Kerosene	13
Distillate	11
Gas oil	19
Fuel oil	17

The gasoline as separated in this analysis showed an exceptionally low endpoint 325° F. The antiknock rating was 51 octane number and the sulfur content only 0.016 per cent. With adequate fractionating equipment this oil should yield at least 35 per cent gasoline.

MAXIMUM VALUE for every dollar invested!

When you specify NATIONAL A.P.I. Seamless External Upset Tubing, you can be sure that you receive every tubing advantage known in modern-day manufacture. Every facility, all the skill, and all the experience of the largest manufacturer of tubular products in the world are behind every length of this product to best meet the severe requirements of today's deep wells. This is why NATIONAL Seamless Tubing merits the preferred place it has in America's Oil Fields.

There's no uncertainty about the wall strength of this tubing—there is no weld—it's pierced from solid steel. This eliminates any possibility of failure due to opening at a weld, which is often caused by the concentration of wear or cutting action of sucker rods. The heavy upset ends give extra strength and security where most needed and correct balance of metal against stress for every demand of service. The thickened ends afford abundant wearing metal, force any bending away from the joints, and give increased resistance to the crushing action of the coupling—an important safeguard when tubing is to be made up and broken down again and again. For severe corrosive conditions, Galvanized NATIONAL Tubing is available. If you want the maximum value for every dollar invested, be sure to specify NATIONAL Seamless A.P.I. External Upset Tubing—

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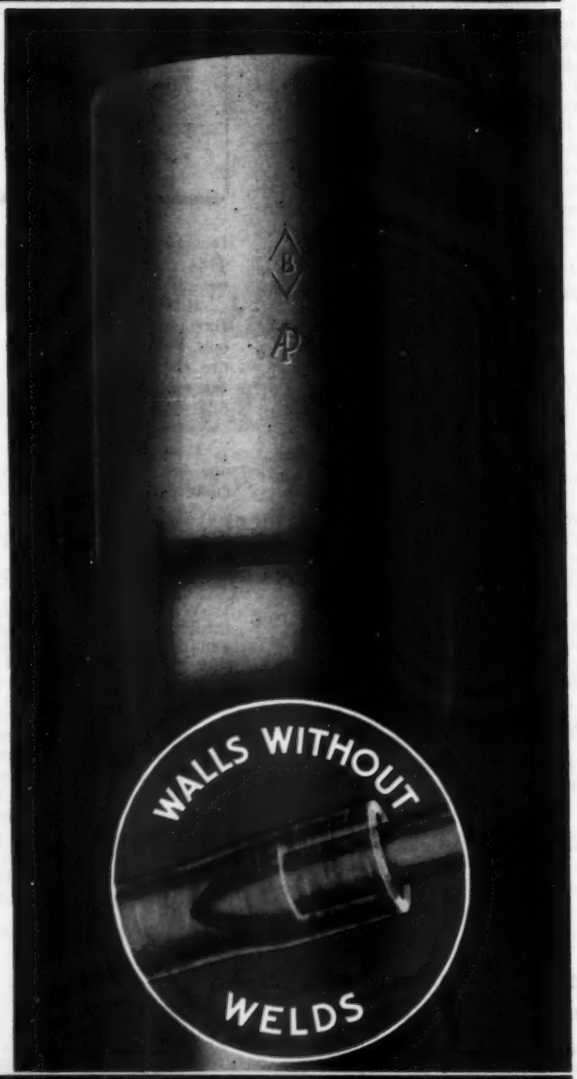

NATIONAL SEAMLESS
DRILL PIPE - CASING - TUBING - LINE PIPE

PROBLEMS FROM READERS

Edited by T. F. Smiley

Wants to Clean Out Mass of Paraffin Without Pulling Tubing String

I have a paraffin problem in a Wilcox sand well in Oklahoma City presenting points I would like advice about. Paraffin is forming inside the string of 2½-inch tubing at a point about 3,000 feet above the bottom of the hole, and in this zone of accumulation, which is several hundred feet in depth, the material solidifies and nearly fills the tubing. The well is pumped with a long-stroke pumping unit and the string of rods is made up of 71 per cent three-quarter-inch diameter and 29 per cent seven-eighths inch. I want to use a type of inside tubing scraper that is placed on the rods. Two units are used, one immediately above the traveling valve and the other below the point where the paraffin accumulates. The upper cleaner is of smaller diameter than the lower one. When the rods are pulled the upper one cuts away about half of the paraffin accumulation and when the lower and larger-diameter scraper reaches the paraffin it removes the rest. This accumulated paraffin will add weight to the string of rods as they are pulled and I have been considering washing down the inside of the tubing with butane or propane liquor before pulling the rods, but I am at a loss to find a way of disposing of this softened mass of paraffin which will accumulate in the tubing. I do not want to pull the string of tubing if it can be avoided, nor do I want this mass of soft paraffin to settle into the working barrel.—N. M. N.

Regarding the removal of paraffin from the inside of tubing through the use of scrapers to be run in the sucker rod string, although you do not tell anything about the texture or consistency of the paraffin, this method would seem to be practical in the Oklahoma City field only (1) when the "pilot scraper," or the one at the base of the paraffin accumulation, is out or nearly out of the tubing at the time the lower scraper reaches the paraffin deposit; or (2) when the paraffin is of such texture as to permit the scrapers to pull it from the hole without subjecting the rods to excessive stresses. This problem would almost require experimental or trial work in the field.

As a suggestion, taking for granted that the deposited paraffin covers only about 300 feet of the tubing, would it not be possible to install a series of 8-foot sucker-rod subs in the particular area of the string affected by the paraffin, placing the scrapers at the 8-foot intervals so that with the rods receiving a 10-foot stroke from the unit at the surface these scrapers, 8 feet apart, would travel the full 10 feet of the pumping stroke? The actual additional weight of this number of scrapers would be only about 200 pounds. The friction they would cause in the tubing would not exceed 1,000 pounds, and provided they kept the tubing clean throughout their working area, that being where the paraffin comes out of solution, it is reasonable to believe that the paraffin would be pumped from the hole with the oil.

Another feature to be considered in running these scrapers in the sucker-rod string is that the "pilot scraper" would be running in tubing the inside diameter of which would be very little larger than the outside diameter of the scraper, and the scraper would be subjected to severe wear if it were softer than the tubing.

Should the paraffin be of such texture as to make it difficult to pull it from the tubing with scrapers, it might prove beneficial to use one of the commercial paraffin solvents. If you prefer, you could use propane or butane or a mixture of the two. In either case the solvent should be introduced down the annular space, to be pumped back up the tubing. By agitation with the sucker-rods in the tubing the solvent probably would pick up much of the paraffin and soften the remainder.

Readers are invited to send questions relating to drilling, producing and transporting operations. These questions will be referred to persons capable of answering authoritatively. The names of those writing for information will be held confidential, initials only being published. This department cannot undertake to answer questions involving royalty or other investments, patents or intricate formulas or questions which should be submitted to consulting engineers, geologists or lawyers.

In the event that the foregoing methods proved unsatisfactory, there is the remaining alternative of washing the paraffin from the tubing by introducing either propane, butane or a mixture of them, down the tubing by the following method: Equip the working barrel with a standing valve that could be unseated and reseated. By unseating the standing valve and allowing the oil in the tubing to run back into the bottom of the hole, it would be possible to introduce enough of the propane-butane mixture to fill the tubing and at this point it would be advantageous to reseat the standing valve in the working barrel, thereby stopping the flow into the bottom of the hole and holding the lighter fluid in the tubing.

After allowing sufficient time for the mixture of the paraffin and the solvent, the well could be started pumping and the action of the rods in the tubing would tend to accelerate the dissolving action of the gasoline. The gasoline and paraffin then could be pumped from the well.

WHY THEY CALLED IT
Dry-Hole Money

Dry-hole money is the name given to contributions by owners of leases in a wildcat area to one lease owner in the event that a test well drilled by him proves a dry hole. This device enables leaseholders to have the area tested without each one incurring the whole expense of drilling. If the well should be a commercial producer, the owner of the lease meets the drilling costs unaided. If it is a failure, the other lease owners in the agreement pay him amounts proportioned to the expense involved, the extent of their acreage and their financial resources. Sometimes operators with long-term leases are in no hurry to have the area developed and do not join in the dry-hole money agreement.

Several Separate Problems Present in One Repressuring Question

Considerable stress has been laid on the value of permeability as an aid in planning a repressuring development. With the permeability known from an actual analysis of a core by a reputable laboratory, can you refer me to any articles which would tell me (upon the basis of the known permeability) the proper spacing, best medium to use (water, air or gas), optimum pressure to accomplish the maximum recovery, and amount of intake of each well?—A. S.

Your question is complex and cannot be answered in any simple manner, for you have combined into one question several separate problems, such as well spacing, method of secondary recovery and core study, and have again subdivided these subjects into problems involving details of methods.

Your object is understood. You have a core analysis and now desire information regarding how to apply that knowledge to your particular property. This department knows of no such data combined into any one article or series of articles to which it can refer you. You will find of value in this connection an article in The Oil and Gas Journal of August 29, 1935, on water flooding in the Nowata district of Oklahoma.

It is recommended that you consult with engineers familiar with secondary recovery methods and act upon their advice. There are so many factors to be considered before determination of method is decided upon that it is not safe to try to apply any method without having some detailed knowledge of all other methods and weighing the advantages and disadvantages of each as applied to your particular problem.

Geological Terms Used in Referring to Sands in Michigan Oil Fields

Will you give me a few words of explanation concerning the geological terms "Berea," "Traverse", "Dundee", "Monroe" and "Michigan stray sands"? Will you please mention the order in which they occur from surface down?—R. P.

If you can obtain a copy of "Oil and Gas Fields of Michigan," by Robert B. Newcombe, published by the Geological Survey Division of Michigan, you will find much information in addition to what is given here. The following facts are taken from that book.

First, considering the systems, from Pennsylvania down they are Mississippian, Devonian, Silurian and Ordovician.

The Berea occurs in the Mississippian system between Sunbury and Bedford and is similar to the Berea of Ohio. It is a white to gray sandstone containing pyrite and is from 0 to 270 feet thick.

The Traverse is in Middle Devonian and consists of several groups of limestone, shale, gray, blue, buff and black in color and is from 60 to more than 800 feet thick.

The Dundee is next below the Traverse in the Devonian system and is a limestone, buff, gray, dolomitic and cherty, and from 0-300 feet thick.

The Monroe is of Silurian age, Salina time, and is in the upper part of this section. It is dolomitic, anhydrite, gypsum, rock salt, shale, buff, gray and red, and from 0 to 1,570 feet thick.

The stray sands are just what the name implies and are so classified for want of correlation. The only reference is that gas and small amount of heavy oil is found in the Michigan "stray sand", a short distance above the Marshall. The Marshall is divided into two parts, upper and lower, and is in the Mississippian system between Grand Rapid and Coldwater formations. The Marshall is from 150 to 560 feet thick.

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The Tico BL Diesel Engine has been designed for cold starting under all conditions with a high compression ratio that assures maximum power and minimum fuel consumption.

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TITUSVILLE, PENNSYLVANIA

East and East Central Texas

By
L. E. BREDBERG

PAUSE IN EAST TEXAS TESTS AND FIVE WILDCATS ARE DRY

DALLAS, Tex., Dec. 2.—Not one new wildcat location was reported in the East Texas district this week, and only five wildcats were reported completed, all proving failures. Angelina County received three of these with Gregg and Van Zandt County each recording one. This is the first week in a long period in which no wildcat location was reported. However, locations for proposed tests are to be announced in the near future as more blocks are being assembled.

E. M. Thomason is to drill a test on the Estes 239-acre tract in the William Gibbon Survey, 1½ miles southeast of Roane in Navarro County on a block of some 900 acres. The hole will first be drilled to test the shallow sand found around 900 feet. If this does not prove productive the hole will no doubt be carried on down to the Woodbine sand.

The North Texas Syndicate is to make a location 1 mile west of its No. 1 Wright, which is now shut down at 2,644 feet after testing salt water. Location is in the Alfred Moore Survey, Lamar County.

George Greer and others have financed a test 7 miles northeast of the town of Blossom in Lamar County and are to move in and spud by January 1. Taubert & McKee have the contract.

Varner & Sparks have taken approximately 3,000 acres around the old Ashburn and others No. 1 Barry dry hole abandoned in Austin chalk at 3,993 feet, and located between LaRue and Brownsboro and north of Flat Creek in the A. York and adjacent surveys, Henderson County. Another test is to be drilled in the area.

M. E. Croom is taking a block, part of which is the old Shell Petroleum Corp.'s La Rue block in the Cherry, Boone, Monk, Adams and adjacent surveys in Henderson County. Another test will probably be put down in this area.

Paul V. Ware has taken a block in the Williams, Vincent, Cuiston, Morgan and adjacent surveys in Limestone County, and a test will probably be drilled on same in the near future.

Trinity Sand Test

C. C. Orr is working up a block in Red River County for a Trinity sand test. The block is located in and around the John Bartley, William Scott, McGinnis and other surveys around the town of Allen Mills, north of Clarksville.

Trinity Sand Producer

The Trinity sand producer of the Tide Water Oil Co. and Texas Seaboard Oil Co. on the Wills farm, S. Edmondson Survey, in the Cayuga field, northwest Anderson County, which came in a couple of weeks ago with a large gas potential, and making some distillate, is now producing 75 per cent distillate and about 25 per cent water. It is waiting for a gas line connection which will probably be supplied by the Lone Star Gas Co. which is installing a gas gathering system in the field to serve its 20-inch trunk line now nearing completion to Irving Station near Dallas. The line was laid principally to take gas from the Woodbine sand gas producing wells in the Long Lake field in southwest Anderson County and the Cayuga field, but will also take the gas from the deeper pay zone, although there is only one such well drilled to date, and is the first Trinity sand producer in the entire East Texas district.

Wildcat Completions

The American Liberty Oil Co. and Pioneer Exploration Co. have abandoned their No. 1 Dr. H. M. Wilson, 3 miles northwest of Huntington in Angelina County, at a total depth of 1,490 feet. This test was seeking the production recently found in the area by the latter company on the Willroy farm in the eastern part of the county. LeBlanc abandoned his No. 2 DuPuy, 4½ miles south of Huntington at a total depth of 2,099 feet, and the Regal Oil Co.'s shallow hole southeast of Wells was given up as dry at 836 feet.

C. L. Porter abandoned his southwestern Gregg County wildcat at a total depth of 3,895 feet after logging Woodbine sand at 3,890-93 feet and finding no oil saturation. The test is located on the Mrs. F. G. Glover farm in the George Melton Survey. Elevation is 419 feet.

The Pioneer Exploration Co. abandoned an interesting wildcat 8 miles south of Canton in Van Zandt County this week. Total depth is 4,873 feet and elevation 541 feet. It topped the broken Austin chalk at 3,540 feet, the hard Austin at 3,590 feet and the Woodbine at 4,554 feet.

Westgate Oil Co. No. 1 West Lake Hunting and Fishing Club wildcat test in the M. Rentarariz Survey, 14 miles east of Mineola in Wood County, has been abandoned at a total depth of 5,302 feet in sandy shale. Elevation is 405 feet. It has been running low structurally and no test was made for production.

Grayson County Deep Test

Olson Drilling Co. and Skelly Oil Co.'s proposed deep test on lands owned by the Southwestern Life Insurance Co. in the J. C. Jamison Survey, 4 miles north of Denison in Grayson County, is drilling ahead near the 3,800-foot mark. This is probably the most interesting test in the northern tier of Texas counties and has caused a considerable lease and royalty play in the sector and the moving in of company men to watch the progress of the test and purchase acreage in this and adjacent counties.

East Texas Field

During the week there were 63 completions reported in the East Texas field, 1 of which was dry, 10 completed on the pump, 3 swabbing, 1 flowing by heads and another making only 8 bbls. per hour. Twenty-four of the wells were completed by major companies and the remainder by small companies and individual operators.

As operators continue to prospect on edge leases more and more pumping wells are added to the list each week, with a dry hole announced now and then as sand fails to produce or is not contacted. But this edge exploration work cannot be considered in vain, as acreage is added to production in the field, and although some of these wells may not pay out on the edge leases they will at least add to the ultimate production of the field and therefore should be recognized as worth while ventures. Independent operators have led in this edge drilling, some of the extension leases proving far better than first considered.

Tank Car Shipments

Only 929 cars of refined products, consisting of 7,971,730 gallons moved via rail this week, the smallest tank car movement since May, 1935. Gasoline movement by trucks also decreased by 3,200 bbls. daily under the previous week's figures. Intrastate tank car gasoline was quoted at 3½ to 4 cents per gallon, whereas intrastate truck gasoline was as low as 2¾ cents per gallon. Interstate gasoline was up to 4⅝ cents with a greater demand for gasoline in the field, especially from the Chicago area.

Runs to local refineries averaged only 44,935 bbls. per day this week, which is at least 22,000 bbls. per day under runs about two or three months ago.

Conversion

The Sun Oil Co. has converted a dry hole in its No. 15 A. G. Morton in the Silas Baggett Survey, on the extreme east edge of the field just north of the town of Kilgore in Gregg County, into a producer, according to railroad commission reports. It was originally completed as a "duster" and was carried on commission reports as such from July 31 to November 16 of this year.

There is a total of 197 activities in the field at the present time, 10 of these are locations, 36 derricks, 7 rigging up, 110 drilling and 34 shut down.

Want Increased Allowable

One of the railroad commissioners was in favor of granting the field a greater allowable, and a certain civic organization in East Texas has pledged itself to work for a greater daily output in the field, but the commission has ordered the allowable to remain the same, which is 2.8 per cent of the hourly well potential, making around 433,000 bbls. per day.

The well density in the field is now one well to each 6.52 acres according to reports from the field. Major producers have a density of one well to every 7.54 acres whereas the independent operators have drilled their leases to one well to every 5.13 acres. The ultimate well density has been estimated at one well to each 4.5 or 5 acres.

EAST TEXAS COMPLETIONS

Following are the completions reported in the past week in the East Texas field with sand records (top of pay and total depth) and initial production:

Gregg County

Arkansas Fuel Oil Co. No. 12-A McKinley, 3,559-3,584 feet, 23 bbls. in 15 minutes; No. 13 Rembert, 3,466-3,490 feet, 25 bbls. in 15 minutes; No. 7 Whatley, 3,541-3,570 feet, 20 bbls. in 15 minutes. Atlantic Oil Producing Co. No. 7-C Barnswell, 3,477-3,518 feet, 118 bbls. per hour. Clark & Cowden No. 3 Mosley, 3,470-3,530 feet, 17 bbls. in 15 minutes. Hanburry No. 1-B Victory, 3,617-3,620 feet, 35 bbls. in 30 minutes through 1-inch choke. Humble Oil & Refining Co. No. 22 Mackey, 3,578-3,591 feet, 46 bbls. per hour.

Shell Petroleum Corp. No. 24 Richey, 3,560-3,616 feet, 35 bbls. in 30 minutes. Stanolind Oil & Gas Co. No. 6 Christian, 3,597-3,650 feet, 12 bbls. in 15 minutes; No. 3-B Harley, 3,574-3,617 feet, 12 bbls. in 15 minutes. Superior Oil Co. No. 5-B Prichard, 3,522-3,561 feet, 75 bbls. in 30 minutes. Texas Co. No. 11 Wood, 3,570-3,580 feet, 24 bbls. in 20 minutes. Tide Water Co. No. 33 Lake Devernia, 3,495-3,535 feet, 15 bbls. in 10 minutes.

Gulf Production Co. No. 34 Spear, 3,580-3,600 feet, 65 bbls. per hour. Humble Oil & Refining Co. No. 17 Knowles, 3,539-3,615 feet, 40 bbls. per hour. Landsberry, Receiver, No. 5 Money, 3,582-3,584 feet, 15 bbls. in 30 minutes. Sharp No. 2 Duncan, 3,522-3,530 feet, 40 bbls. per hour. Shell Petroleum Corp. No. 16-A Douglas, 3,593-3,608 feet, 32 bbls. in 15 minutes. Sinclair Prairie Oil Co. No. 57-B King, 3,460-3,495 feet, 30 bbls. in 30 minutes.

Smith County

Hunt Production Co. No. 16-B Fair, 3,694-3,696 feet, 27 bbls. in 20 minutes. Illinois Oil Co. No. 30 Mayfield, 3,788-3,790 feet, 90 bbls. in two hours. Sinclair Prairie Oil Co. No. 60-A Mayfield, 3,756-3,760 feet, 20 bbls. in 15 minutes. Sun Oil Co. No.

3 Burns, 3,738-3,739 feet, 20 bbls. per hour. Texas & Canadian Oil Co. No. 4 Pace, 3,835-3,836 feet, 80 bbls. per hour. Texas Gulf Production Co. No. 7 Hodnott-Melton, 3,686-3,691 feet, 50 bbls. per hour.

Rusk County

Dowlern No. 1 Mayfield, 3,586-3,704 feet, pumping, no gauge. Cordova Union Oil Co. No. 9-D Christian, 3,630-3,680 feet, 30 bbls. per hour. Tide Water Oil Co. No. 4 Haynes, 3,615-3,625 feet, 20 bbls. in 10 minutes. Barbare & Seip No. 5 Lambert, 3,512-3,559 feet, 55 bbls. per day, swabbing. Burwyn Oil Co. No. 11 Smith, 3,646-3,663 feet, 30 bbls. per hour. Royall Petroleum Co. No. 4 Wooley, 3,580-3,630 feet, 20 bbls. in six hours, pumping. Georgian Corp. No. 1 Brandon, 3,822-3,823 feet, 40 bbls. in five hours. Georgian Corp. and others No. 1-A Kee, 3,771-3,772 feet, 25 bbls. in 12 hours, pumping. Gant, Garvin & Waggner No. 21 Moore, 3,555-3,610 feet, 35 bbls. per hour.

Doris, Smith and others No. 1 Murphy heirs, 3,564-3,680 feet, 30 bbls. in 10 hours, pumping. Humble Oil & Refining Co. No. 33 Turner, 3,640-3,729 feet, 57 bbls. per hour. Hunt Production Co. No. 7-F Bradford, 3,535-3,626 feet, 26 bbls. in 15 minutes; No. 24-C Fair, 3,652-3,660 feet, 31 bbls. in 15 minutes; No. 12 Moore, 3,623-3,632 feet, 27 bbls. in 15 minutes; No. 13 Moore, 3,625-3,632 feet, 15 bbls. in 15 minutes; No. 14 Moore, 3,612-3,615 feet, 80 bbls. per hour. Marathon Oil Co. No. 25 Burton, 3,603-3,639 feet, 66 bbls. per hour; No. 19 Graham, 3,621-3,654 feet, 85 bbls. per hour. Marr, Trustee, No. 1 Lacy, 3,652-3,656 feet, 15 bbls. per hour, by heads. Norman No. 1 Propes, 3,541-3,605 feet, 70 bbls. per day, pumping. Petroleum Marketer No. 3 Arnold, 3,662-3,700 feet, 22 bbls. in 20 minutes.

Barbare & Seip No. 3 Herring, 3,518-3,561 feet, 65 bbls. day, pumping. Retsal Drilling Co. No. 1 Lambert, 3,530-3,613 feet, 50 bbls. day, pumping. Sentinel Oil Co. No. 1-E Frederick, 3,520-3,620 feet, 20 bbls. day, pumping. Sinclair Prairie Oil Co. No. 12 Wilson, 3,636-3,651 feet, 30 bbls. in 30 minutes. Smith No. 2 Frederick, 3,596-3,700 feet, 25 bbls. per hour, swabbing. Sonbar Oil Co. No. 13 Finney, 3,640-3,710 feet, 75 bbls. per hour. Stanolind Oil & Gas No. 23-A Maxwell, 3,726-3,777 feet, 21 bbls. in 20 minutes. Sun Oil Co. No. 13 Lee, 3,621-3,623 feet, 26 bbls. in 30 minutes. Sutton & Hawkins No. 4 Kangerga, 3,631-3,636 feet, 25 bbls. per hour. Wilkerson No. 5 Bradford, 3,510-3,661 feet, 5 bbls. in two hours, swabbing.

Upshur County

Humble Oil & Refining Co. No. 11 Phillips, 3,668-3,678 feet, 43 bbls. per hour. Lyon and others No. 6 O'Byrne, 3,721-3,737 feet, 15 bbls. in 15 minutes. Monday Oil Co. No. 7 Watson, 3,626-3,646 feet, 35 bbls. per hour. Pewitt No. 2 Jones, 3,813-3,822 feet, 20 bbls. per hour, pumping; No. 3 Jones, 3,761-3,771 feet, 20 bbls. per hour; pumping. Skipper & Bivins No. 1 Gowlin, dry and abandoned at 3,610 feet. Stanolind and Falcon Oil Cos. No. 6-C Everett, 3,617-3,625 feet, 18 bbls. in 15 minutes.

Miscellaneous Completions

Anderson County

Burke No. 1 Williams, total depth 3,083 feet, 78 bbls. in 24 hours through one-eighth inch choke. Clar & Cowden No. 2 Wright, total depth 4,088 feet, 127 bbls. in 24 hours through one-eighth inch choke.

Angelina County

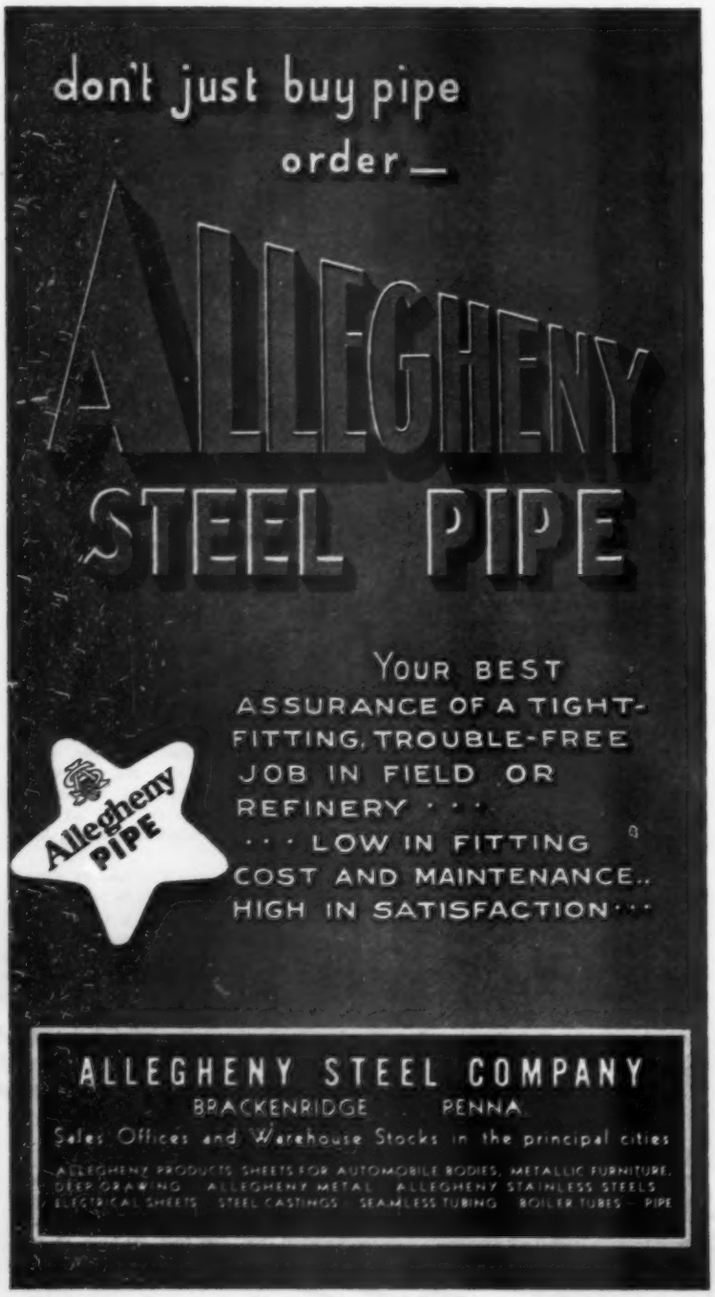
American Liberty Oil Co. and Pioneer Exploration Co. No. 1 Dr. H. M. Wilson, dry and abandoned 1,490 feet, 3 miles northwest of Huntington. LeBlanc No. 2 DuPuy, dry and abandoned 2,099 feet, 4½miles south of Huntington. Regal Oil Co. No. 1 Harrison, dry and abandoned 836 feet, southeast of Wells.

Gregg County

Porter and others No. 1 Glover, dry and abandoned 3,895 feet, elevation 419 feet, sand 3,890-93 feet.

Van Zandt County

Pioneer Exploration Co. No. 1 Sides, dry and abandoned at 4,873 feet, elevation 541 feet.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Geophysicists Meeting Held in Dallas

DALLAS, Tex., Dec. 2.—The Society of Petroleum Geophysicists held a one-day midyear session here last week, with B. B. Weatherby of Tulsa presiding.

E. E. Rosaire, past president of the organization, presented, "A Review of Discoveries in the Gulf Coast."

L. Y. Faust, of Houston, presented a paper on the "Influence of Geological Factors on Longitudinal Seismic Velocities," and M. M. Slotnick, mathematician for the geophysical research department of the Humble Oil & Refining Co., Houston, delved into "Seismic Computations Assuming the Velocity and Integrable Function of Depth, With an Application."

E. G. Leonardon spoke on "The Economic Utility of Thermometeric Measurements in Drill Holes, in Connection With Drilling and Cementing Problems." W. T. Born discussed the use of multiple shot holes and multiple geophones in geophysical work. Dr. R. D. Wyckoff read a paper on "Earth Tides and Their Measurements." Alfred Wolf addressed the group on "The Amplitude and Character of Refraction Waves, and the Screening Effect of Salt Domes." J. B. Eby's paper dealt with the geophysics and discovery of the Tomball oil field in Harris County, Texas.

H. M. Evjen spoke on "The place of the Vertical Gradient in Gravitational Interpretation," and G. H. Westby on the identification of reflection from base of the Mississippian limestone.

Geophysical Service, Inc. of Dallas, tendered a luncheon to the group in the Baker Hotel at noon and a stag banquet was held that evening. During the banquet members of the organization told of the work done in the various parts of the United States during the past year, geophysical work having increased considerably over previous years, showing the progress made and the value and thought being given to geophysical surveying by oil companies. Gulf Coast counties in Texas showed considerable increase in geophysical activities in 1935. Geophysical surveys were credited with having discovered 13 pools in that district, five of these pools having been worked by company crews and eight pools being discovered through contract crew surveys. Eleven geophysical parties worked in South Texas all year.

During the forepart of the year there were 17 seismograph crews working in California, mostly in the San Joaquin Valley. At the middle of the year this number had increased to 20, of which 11 were contract crews and 9 company crews. Geophysical work was credited with having opened four gas fields in the state during the year, with four failures being recorded.

In Colorado there were three magnetometer parties working this year, and about 15 seismograph parties. More work is expected in this district for 1936. In Montana there was some seismographic work carried on and in North Dakota a few reflection shot points were made. One company did a little work in Utah during the year, whereas geophysical work in Wyoming was at a fairly active rate. Seven crews worked in the state during the warmer months, winter months preventing work.

In East Texas contract crews were said to be on the increase whereas company crews were decreasing in the district.

In Oklahoma there were 57 parties working during the year, seven oil fields, two of economic importance, having been discovered through such surveying. In Kansas 14 parties was the maximum during 1935, one field being found as a result of such work.

Five crews have been working in Mississippi and one party is working in Alabama.

Officers of the association are: Dr. B. B. Weatherby of Geophysical Research Corp., Tulsa, president; L. W. Blau, of the geophysical department of the Humble Oil & Refining Co., Houston, vice president, who was also chairman of the midyear meeting; G. H. Westby of the Seismograph Service Corp., Tulsa, secretary-treasurer, and Dr. F. M. Kannenstine of the Independent Exploration Co., Houston, editor of the association's year book.

The annual meeting is to be held in Tulsa, in March, 1936.

West and North Texas

NEW POOL SHOWS IN ECTOR COUNTY; DEEP TEST FAILURE

By
L. E. BREDBERG

FORT WORTH, Tex., Dec. 2.—Ector County received a showing for another pool at the end of the week and also recorded a deeper pay streak in an extreme north end outpost test. One Ordovician test was abandoned in the West Texas district and another logged sulfur water. An extreme wildcat in Sutton County attracted attention as it logged a showing of oil in what is believed to be the Pennsylvanian.

York and Harper No. 1 H. C. Foster, located in the SE cor. section 13, Block 43, Township 2s, T.&P. Survey, about 3 miles northwest of Odessa and the same distance northeast of the Addis pool, Ector County, is showing for a producer and a new pool opener as connection with the latter named pool apparently is not possible. At 4,010 feet the test picked up a light showing of oil, logging an increase at 4,090 feet, the oil increasing in the hole as drilling continued to 4,104 feet, where it was shut down to erect storage and make a test before going deeper. The lime was topped at 3,790 feet, the test running higher structurally than wells on the north end of the Addis pool.

Four miles to the northwest the Landreth Production has a small producer in the NW quarter of section 47, Block 43, Township 1n, T.&P. Survey. These two tests may be linked by future production, but at the present the York & Harper well appears as a new pool opener for the county. The well is located on a block farmed out by the Barnsdall Oil Corp., which company is supposed to take over the well and development of the block according to contract made in the farm-out.

York & Harper hold 600 acres around the well and Broderick & Calvert of Fort Worth hold approximately 1,200 acres in the area.

Goldsmith Well

Gulf Production Co. No. 3 Goldsmith, a west offset to a Phillips Petroleum Co. well on a Pure Oil Co. farm-out lease, appears as the best well yet drilled on the Goldsmith block and perhaps the best well to be completed in Ector County. It is located in the SE quarter of section 22, Block 43, Township 1s, T.&P. Survey. The best increase in oil was logged at 4,084-90 feet in soft lime, picking up the first oil with an estimated 10,000,000 feet of gas at 3,963-66 feet. It was shut down at 4,090 feet flowing 485 bbls. in 10 hours, the oil testing 36.5 degrees gravity.

Cowden Outpost

The outpost test of the Sun Oil Co. and Atlantic Oil Producing Co. in section 6, Block 43, Township 1n, T.&P. Survey, near the Andrews County line in northern Ector County, sprang a surprise during the week and showed for a well either from a greater depth in the lime formation than oil is being produced in an outpost well 1 mile to the west and south, or it is opening another pay horizon. It is at least showing oil from a deeper horizon than found in the wells 2 miles to the south of the Cowden field.

This test found its first pay at 4,450 feet and filled 800 feet with oil from 4,468-72 feet, later filling 3,500 feet with oil showing 2 bbls. of water per hour from 4,115 feet. It is now flowing by heads into the pit while storage tanks are being erected. Elevation is 3,136 feet. The well 1 mile to the west is pumping only 20 bbls. of oil per day and making a little water. Production in that well is coming from 4,056-70 feet, although it also picked up a showing of oil at 4,300 feet. Elevation is 3,108 feet. Test of the new pay horizon in No. 1-B Holt in section 6, will probably be made this week. Proving a commercial producer will extend production over the line into Andrews County and further drilling can be expected on offset leases if it makes a good well and it appears destined to do so.

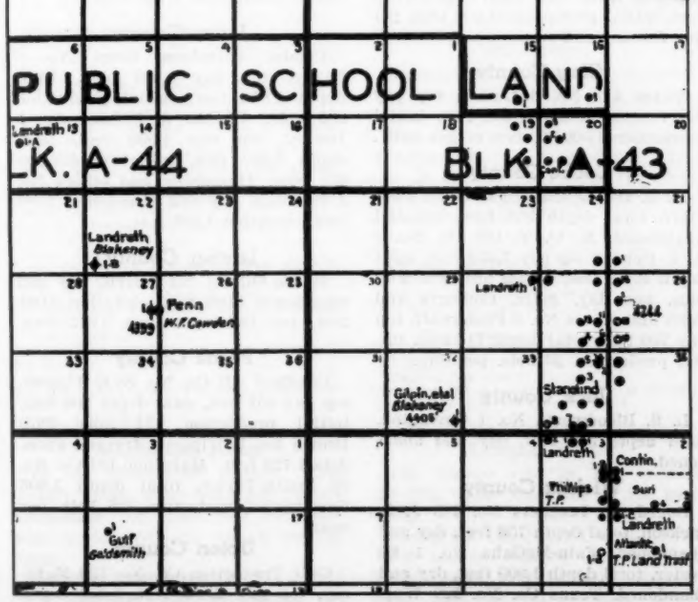
Sutton County Showing

Fleetborn Oil Corp. and Paul C. Teas No. 1 G. S. Allison, near the east line of Sutton County, located in section 49, Block A, C.W.T.&P. Survey, logged a saturated sand during the week at 3,383-93 feet and shut down at the latter depth to make drill stem tests. The first one-hour test was made at 3,347-66 feet, the test showing 5 gallons of 16.6 gravity oil and a small amount of drilling fluid. The second one-hour test showed about the same amount of low-gravity crude. The formation is believed to be the Pennsylvanian. It was scheduled to be an Ordovician test and coring will be continued.

Ordovician Abandonment

The second deepest test ever drilled in the Permian Basin of West Texas was abandoned this week by the Humble Oil & Refining Co. on the L. W. Pollock ranch in northeast Upton County. The hole, located in section 4, Block M, was abandoned at 11,445 feet in Pennsylvanian. It topped Yates sand at 2,560 feet, the lime at 4,330 feet and has an elevation of 2,758 feet.

Gulf Production Co. Ordovician test on the Waddell ranch in western Crane County tested sulfur water in Ordovician at 6,450 feet, and is to be cemented back to 6,300 feet. It has an elevation of 2,561 feet. Location is in the center of the NW of the NW quarter of section 4, Block B-27, on a large block of acreage held by the company.



Sun and Atlantic Oil Producing Co. No. 1-B Holt, section 6, northern Ector County, which has apparently opened a deeper pay than in the Cowden field to the south

Reagan Abandonment

The Sun Oil Co. No. 1 L. W. Young, located in section 1, G.C.&S.F. Survey, about 2½ miles south of the town of Big Lake in Reagan County, and about the same distance north of a small producer opened the fore part of the year, has been abandoned after plugging back from total depth of 2,857 feet to 2,849 feet, shooting a couple of times and acidizing with 2,000 gallons. The first shot, 300 quarts, was set at 2,380-2,444 feet. The test was then acidized at 2,444 feet and a second shot, 250 quarts, was set at 2,444-2,700 feet. The test had a good showing of oil but the shooting and treating showed no results. Elevation is 2,678 feet.

Wildcat Showing in Jones

Jones & Stasney and Reliance Oil & Royalty Co. No. 1 Ida Crow, near Avoca in northeastern Jones County, is appearing as another pool opener for this county. It topped the Bluff Creek sand at 1,740 feet and showed for at least a 12-bbl. per day producer in top of the sand. It is to be drilled deeper and will no doubt increase its potential. Location is in section 9, D.&D. Survey, about 12 miles northwest of Lueders.

Upton County Wildcat

Moore Brothers of San Angelo and the Bolsa Chica Co. of California are to drill a 4,500-foot test on the J. H. Tippett ranch in Upton County. Location is in the center of the NE quarter of section 58, Block 7, T.C. Survey, on a block held by the California Exploration Co.

Grisham & Hunter of Abilene have material moved in for a test on the Sullivan lands in section 3, K. Aycock Survey, Garza County, and the Hayman-Krupp Oil & Land Co. has location staked for a wildcat in Hudspeth County. Same falls in section 34, Block 74, Township 6, T.&P. Survey.

The Cardinal Oil Co. is to make another try for production on its holdings on the White and Baker ranch about 9 miles west of the Yates field in Pecos County. Location for this new test is 330 feet from the north and east lines of section 43, Block Z, T.C. Railway Survey. Pits have been dug and machine is being moved in.

Gas in Gaines County Test

W. T. Walsh and Harry Adams Corp. No. 1 Averitt, a rank wildcat in Section 22, Block G, W.T. Railway Survey, northwest of Seminole in Gaines County, encountered still another pocket of gas this week and is again fishing for tools bumped up the hole from 3,120 feet where the gas was struck. This is the fourth

gas struck in the hole, the last being logged at 3,100 feet last week causing a short fishing job for tools. It is one of the most interesting and closely watched wildcats in the district.

Coke County Failure

Hagerty and others No. 1 S. W. Gaston, located in the Joseph Young Survey, near Tennyson in Coke County, appears as a failure after striking sulfur water at 3,332 feet in the Cisco. It filled 300 feet with water the first hour while drilling and was shut down at 3,338 feet waiting on plugging orders.

Simpson Reported Logged

Forest Development Corp. No. 1 D. Stapp, in Block A, G.H.&S.A. Survey, southeastern Kimble County, was reported this week as topping the Simpson at 1,608 feet and is drilling ahead near 2,100 feet.

Locations and Completions

There were 15 locations staked in the district this week and 22 wells completed. One of the abandonments was a wildcat located in northwest Loving County. The Mason Oil Co. sank this test on the Kyle ranch in section 22, Block 55, Township 1, T.&P. Survey. Total depth is 4,002 feet and elevation is 3,001 feet. It topped the Delaware lime at 3,912 feet and the Delaware sand at 3,946 feet. A showing of oil did not prove commercial and of sufficient importance to be given a shot of nitro.

Ranger and Wichita Falls

Locations fell to a new low in the Wichita Falls district this week, dropping to 21, the lowest number of new starts reported for the district in three years. Completions also registered a low, falling to 28, 15 of which were oil wells, 1 a gas well and the remainder dry holes. The Deep Oil Development Co. and others recorded the best well of the week in the district. Their No. 7, lease No. 4-A L. F. Wilson, in the Chalk Hill area, Archer County, made a 1,500-bbl. potential from pay topped at 2,191 feet. Total depth is 2,214 feet.

Young County

Pitzer & West have contracted to drill a 3,600-foot test 1,350 feet south of their No. 1 Boozer, which was brought in last week 4,000 feet southwest of deep production in southern Young County. That well flowed 35 bbls. per hour for six hours after it was treated with 3,000 gallons of acid in Caddo lime pay from 3,561-3,605 feet. It is now shut in for storage. This second test will be an interesting one due to its possibilities of extending the deep producing area.

The Mook-Texas Oil Co. of Fort Worth has opened what promises to be another shallow pool for the northeast part of Young County. The company's No. 1 W. B. Gegg, in the W. Matthews Survey, logged sand from 728-39 feet and swabbed 240 bbls. in 24 hours, being completed for a 120-bbl. well on the pump.

Throckmorton County

F. Moss & Co. of Fort Worth are seeking permission to core drill and geologize about 18,800 acres in the Travis County School Lands Survey on the Baylor County line in Throckmorton County, 10 miles southwest of the recently developed Portwood sand pool in Baylor County, which is the most prolific pool in the Wichita Falls district. There are three dry holes located on the Travis School Land block, one going to 1,575 feet, another to 1,932 feet and the third to 2,001 feet, however, there is still plenty of room left on the block for exploration work.

Panhandle District

There were 13 locations staked in the Panhandle district this week with a mere dozen being completed.

Oil interest in Childress County has slowed down perceptibly during the past few months and since Alma Oil Co. No. 1 Mollie Low, southeast of Kirkland, located in section 417, Block H, W.&N.W. Survey, has proven little more than a water well after deep drilling, plugging back and testing. It is making salt water with but a small showing of oil while pumping. About 3 miles northwest of it K. T. Wilson and others made location for a test on the Scruggs lands, in section 495, same block and survey. However, this location has been temporarily abandoned and it is doubtful whether it will ever be drilled.

WICHITA FALLS (North Texas) COMPLETIONS

Archer County

L. T. Burns No. 4 Kolb, top pay 1,216 feet, total depth 1,238 feet, initial production 25 bbls. per day; No. 5 M. Klob, top pay 1,220 feet, total depth 1,243 feet, initial production 10 bbls. per day. F. P. Cullum No. 38 Falls (Ellis lease), top pay 1,143 feet, total depth 1,158 feet, initial production 70 bbls. per day. Deep Oil Development and others No. 7, Lease No. 4-A, L. F. Wilson, top pay 2,191 feet, total depth 2,214 feet, initial production estimated 1,500 bbls. per day. Hattie B. Madden No. 1 W. H. Taylor, total depth 1,758 feet, dry and abandoned. A. D. Robinson and others No. 1 L. F. Wilson, total depth 1,600 feet, dry and abandoned.

Baylor County

Bell Oil & Gas Co. No. 1 C. C. Clements, total depth 1,558 feet, dry and abandoned. Consolidated Oil Co. No. 14-R W. H. Portwood, top pay 1,349 feet, total depth 1,365 feet, initial production 300 bbls. per day. Ray and Staniforth No. 34-C Portwood, top pay 1,338 feet, total depth 1,355 feet, initial production 1,000 bbls. per day flowing and swabbing.

Clay County

Texas Co. No. 3 Goetze, top pay 542 feet, total depth 544 feet, initial production 1,000,000 feet of gas daily.

Cooke County

H. E. Danks and others No. 1 Fred Herr, total depth 935 feet, dry and abandoned. K. O. T. Oil Co. No. 2 A. J. Dennis, top pay 1,352 feet, total depth 1,359 feet, initial production 40 bbls. per day. Seitz, Comegys and Seitz and others No. 2 Felderhoff, top pay 700 feet, total depth 715 feet, initial production 20 bbls. per day.

Jack County

L. S. Bloodworth No. 1 Covington, total depth 310 feet, dry and abandoned.

Wichita County

Boardman Brothers No. 4-B J. L. Jackson, total depth 756 feet, dry and abandoned. Fain-McGaha No. 1 Ed Foster, total depth 1,900 feet, dry and abandoned. Texas Co. No. 420 Waggoner estate, top pay 1,076 feet, total depth 1,086 feet, initial production 19 bbls. of oil and 2 bbls. of water per day. Wolff and Hull No. 4 Daume, top pay 687 feet, total depth 695 feet, initial production 3 bbls. per day; No. 6 F. Daume, total depth 712 feet, dry and abandoned.

Montague County

Texas Co. No. 8-B R. Cunningham, top pay 946 feet, total depth 957 feet, initial production 42 bbls. per day.

Wilbarger County

Maro Oil Co. No. 11 Waggoner estate, top pay 1,982 feet, total depth 1,996 feet, initial production 10 bbls. per day.

Young County

L. T. Burns No. 1 Seibold estate, total depth 1,130 feet, dry and abandoned. J. W. Culbertson No. 3 E. C. Stovall, total depth 405 feet, dry and abandoned. L. A. Hedrick and others No. 2 L. D. Box, total depth 600 feet, dry and abandoned. Z. T. Hoehn and others No. 1 Robert Webb, top pay 740 feet, total depth 758 feet, initial production 8 bbls. per day. Rathke Oil Co. No. 1 R. T. Rogers, top pay 3,750 feet, total depth 3,805 feet, initial production 28 bbls. per hour on six-hour test. Stuckey Oil & Gas Co. No. 1 Mrs. J. W. Edwards, total depth 907 feet, dry and abandoned. Underwood and Campbell No. 9-C R. Campbell, top pay 884 feet, total depth 900 feet, initial production 80 bbls. per day.

WEST TEXAS COMPLETIONS

Cochran County

Humble Oil & Refining Co. No. 1 Slaughter, dry and abandoned 4,909 feet, top anhydrite 2,307 feet, top Yates 2,742 feet, top brown lime 3,955 feet, top salt 2,348 feet.

Ector County

Sinclair Prairie Oil Co. No. 2 Wight, top of pay 4,189 feet, total depth 4,229 feet, shot, initial production 549 bbls. Skelly Oil Co. and others No. 2 Scharbauer, top pay 3,535 feet, total depth 3,691 feet, shot, initial production 323 bbls.

Howard County

Continental Oil Co. No. 1-A Settles, dry and abandoned 3,081 feet. Pond Drilling Co. No. 2 Rhoton, top pay 2,600 feet, total depth 2,782 feet, shot, initial production 1,120 bbls.

Jones County

Condor Petroleum Corp. No. 8 Sayles, top pay 1,895 bbls., total depth 1,913 feet, initial production 232 bbls. Ungren & Frazier No. 3 Dorsey, top pay 1,990 feet, total depth 2,002 feet, initial production 677 bbls. Humphrey and others No. 1 Jennings, dry and abandoned 2,080 feet, elevation 1,583 feet.

Loving County

Mason Oil Co. No. 1 Kyle, dry and abandoned 4,002 feet, elevation 3,001 feet, top Delaware lime 3,912 feet.

Pecos County

Cardinal Oil Co. No. 35-E Tippett, top pay 451 feet, total depth 566 feet, initial production 151 bbls. Phil Brown No. 12 Tippett, dry and abandoned 728 feet. Marathon Oil Co. No. 26 Smith-Taylor, total depth 1,605 feet, initial production 438 bbls. per hour.

Upton County

Gulf Production Co. No. 120 McElroy, top pay 2,805 feet, total depth 2,906 feet, initial production 346 bbls.; No. 122 McElroy, top pay 2,794 feet, total depth 2,972 feet, shot, initial production 136 bbls. Humble Oil & Refining Co. No. 1 L. W. Pollock, dry and abandoned 11,445 feet, top lime 4,330 feet, top Yates 2,560 feet, elevation 2,758 feet. W. C. Ray No. 1 Cordova Union, top pay 2,061 feet, total depth 2,125 feet, acidized with 1,000 gallons at 2,125 feet, elevation 2,576 feet, initial production 309 bbls. oil and 25 bbls. water.

Reagan County

Sun Oil Co. No. 1 L. W. Young, dry and abandoned 2,857 feet, plugged back to 2,849 feet, top lime 2,340 feet, shot with 300 quarts at 2,380-2,444 feet, acidized with 2,000 gallons at 2,444 feet, shot 250 quarts from 2,444-2,700, elevation 2,678 feet.

Ward County

Empire Gas & Fuel Co. No. 2 Smith, top pay 2,705 feet, total depth 3,090 feet, shot, initial production 225 bbls. fluid, 1 per cent water. Gulf Production Co. No. 47 Hutchins, top pay 2,567 feet, total depth 2,794 feet, shot three times, initial production 211 bbls.

Winkler County

Sayre Oil Co. No. 1-C Howe, top pay 2,835 feet, total depth 2,994 feet, initial production 267 bbls. Mid-Continent Petroleum Corp. No. 6-A Howe, top pay 2,794 feet, total depth 2,963 feet, shot, initial production 1,834 bbls.

PANHANDLE COMPLETIONS

Carson County

Danube Oil Co. No. 1 Byrum, top pay 3,095 feet, total depth 3,167 feet, plugged back to 3,150 feet, shot and acidized, initial production 22 bbls. pumping.

Childress County

Wilson No. 1 Scruggs was temporarily abandoned without spudding.

Gray County

Blackwell Oil Co. No. 1 Furneaux, total depth 3,265 feet, plugged back to 2,900 feet, shot, initial production 6,760,000 feet of gas. Champlin Refining Co. No. 10 McLaughlin, top pay 3,020 feet, total depth 3,045 feet, initial production 43 bbls. pumping. Empire Gas & Fuel Co. No. 8 Culler, top pay 3,175 feet, total depth 3,250 feet, shot, initial production 787 bbls. pumping. King Royalty Co. No. 4 Volmert, top pay 3,230 feet, total depth 3,285 feet, initial production 480 bbls. pumping. Magnolia Petroleum Co. No. 14 fee, total depth 3,301 feet, shot, initial production 20 bbls. oil and 5 bbls. water. Skelly Oil Co. No. 31 Schaffer, top pay 3,230 feet, total depth 3,325 feet, shot, initial production 1,065 bbls. pumping.

Hutchinson County

International Petroleum Co. No. 27 Lewis-Badger, top pay 2,955 feet, total depth 2,985 feet, shot, initial production 563 bbls. pumping. Nichols and others No. 1 Moore, top pay 3,120 feet, total depth 3,141 feet, shot, initial production 322 bbls. pumping.

Moore County

Anderson and Kerr No. 1-G Taylor "C," top pay 2,875 feet, total depth 3,503 feet, plugged back to 3,415 feet, shot, initial production 19,670,000 feet gas.

Wheeler County

Helena Oil & Gas Co. No. 20 Keeler, top pay 2,490 feet, total depth 2,530 feet, initial production 4,752 bbls. Skelly Oil Co. No. 9 Johnson, top pay 2,455 feet, total depth 2,504 feet, initial production 1,455 bbls.

Rocky Mountain Area

By
T. R. INGRAM

EIGHT COMPLETIONS IN LEA; DEEP TEST IN EDDY IS DRY

DENVER, Colo., Dec. 2.—Eight wells were completed in the fields of Lea County, New Mexico, in the past week with an aggregate initial production of 13,861 bbls. Most of the new wells made their initial flow through tubing, some naturally and some after acid treatment.

The important deep test of Getty Oil Co. in Eddy County was abandoned as dry at 6,683 feet.

The Hughes estate No. 3 fee, in Archuleta County, Colorado, a recent discovery, pumped 20 bbls. an hour. Stanolind Oil & Gas Co. No. 16-X Parkinson, on the Iles dome, was completed for 10 bbls. an hour.

The California Co. No. 2 Holst, an offset to the discovery on the Quealy dome, Albany County, Wyoming, swabbed 30 bbls. an hour and is estimated at 1,000 bbls. a day on the pump from the Dakota. Ohio Oil Co. will drill another test on the Big Hollow structure 2 miles north of the test recently abandoned. Ohio Oil Co. completed a 315-bbl. well in the Madison lime on the Garland dome. Sinclair-Wyoming Oil Co. No. 9 Wertz, on the Wertz dome, was completed for 13,000,000 feet of gas. A well in the Red Desert country, drilling the past 16 years, is resuming. Three completions were made in the Osage field. Cut Bank, Montana, had five completions, one of which extends the pool.

NEW MEXICO

Eunice Area

Gypsy Oil Co. completed No. 2 Janda in the Eunice area, Lee County. The well, located in C NE SE section 20-21-36, produced 924 bbls. natural flow, in 24 hours, from pay at 3,804-3,914 feet. The flow was through tubing from below packer. It also showed a 1,000,000 foot gas production.

Gypsy Oil Co. No. 3 Arnott-Ramsay C, C NW SW sec. 21-21-36.
Rigging up rotary.
Continental Oil Co. No. 7-C-20 State, C NW SW sec. 20-21-36.
Drlg. 2,600 ft.
Gypsy Oil Co. No. 6 Ball-Ramsey-State, C NW SW sec. 4-21-36.
Drlg. 3,647 ft.
Gypsy Oil Co. No. 1 North-Bell-State, C SE SE sec. 6-21-36.
Set 5½-in. casing at 3,765 ft.
Humble Oil & Ref. Co. No. 1 Adkins, C SW SW sec. 10-21-36.
Drill stem test showed 7,000,000 feet of dry gas at 3,760-3,854 ft.; drlg. at 3,854 ft.
General Crude Oil Co. No. 1 State, C NW SW sec. 32-21-36.
Drlg. at 3,910 ft.
Penrose & Rowan No. 1 Carry, C NW SW sec. 23-23-37.
Drlg. 2,650 ft.
Devonian Oil Co. No. 1 State-Heasley, C SE SW sec. 5-21-36.
Drlg. 3,300 ft.
Continental Oil Co. No. 4-B-8 Meyer, C NW NW sec. 8-21-36.
Drlg. 3,290 ft.
Getty Oil Co. No. 1 State B, C NE NE sec. 16-21-36.
Drlg. 853 ft.
Continental Oil Co. No. 5-A-17 Meyer, C SE SW sec. 17-21-36.
Drlg. 3,530 ft.
Continental Oil Co. No. 2-B-17 Meyer, C SE SE sec. 17-21-36.
Drlg. 3,708 ft.
Continental Oil Co. No. 6-C-20 State, C NE NW sec. 20-21-36.
Drill stem test at 3,810-55 ft., 250 ft. of oil; ran 5½-inch casing.
Shell Oil Corp. and Devonian Oil Co. No. 3 State, C NE NE sec. 20-21-36.
Drlg. 3,762 ft.
Continental Oil Co. No. 3-A-30 Lockhart, C NE NW NE sec. 30-21-36.
Drlg. 3,333 ft.
Texas Co. No. 1 J. M. Dean, C SE SW sec. 28-22-36.
Set 9⅝-in. csg. at 1,415 ft.
Skelly Oil Co. No. 5 State B, C SW NE sec. 16-21-36.
Drlg. 2,835 ft.
Continental Oil Co. No. 7-C-20 State, C NE SW sec. 20-21-36.
Drlg. 2,600 ft.
Gypsy Oil Co. No. 2 Orcutt, C SW SW sec. 5-21-36.
Drlg. 930 ft.
Humble Oil & Ref. Co. No. 2 Adkins, C SW SW sec. 10-21-36.
Rig and tools.
Empire Gas & Fuel Co. No. 3 State C, C NE SW sec. 16-21-36.
Drlg. 1,495 ft.
Continental Oil Co. No. 8-C-20 State, C NW SW sec. 20-21-36.
Drlg. 800 ft.
Gypsy Oil Co. No. 2 Arnott Ramsey, C NW NW sec. 21-21-36.
Drlg. 1,200 ft.
Empire Gas & Fuel Co. No. 2 State D, C SW NE sec. 32-21-36.
T.D. 3,910 ft. in lime, acidizing.
Gypsy Oil Co. No. 2 North Bell-State, C SE NE sec. 6-21-36.
Moving in rotary.
Atlantic Oil Prod. Co. No. 4 State-H, C NE NE sec. 5-21-36.
Drlg. at 1,001 ft.
Gypsy Oil Co. No. 7 Bell-Ramsay-State, C SW NW sec. 4-21-36.
Rig up, waiting for tools.

Hobbs Pool

In the Hobbs pool, Lea County, one completion was reported. Gypsy Oil Co. No. 2 Culp, C SW NW section 19-19-37 had oil pay at 3,905-4,040 feet. It was twice acidized with 2,000-gallon doses, and on its completion test flowed 451 bbls. through tubing, with 200,000 feet of gas, in 24 hours.

Gypsy Oil Co. No. 1 Steve Taylor, C SE NE sec. 24-18-38 (wildcat).
T.D. 4,615 ft.; showed sulfur water; preparing to drill ahead.
Tide Water Oil Co. No. 1 State, 2,310 ft. from N, 330 ft. from E lines, sec. 14-18-37.
T.D. 4,368 feet; swabbed sulfur water after acidizing. Plugged back to 3,860 ft. to test sand. Perforated casing at 3,345-65 ft.; swabbed 19 bbls. in 24 hrs. Will put on pump.
Shell Pet. Corp. No. 3 Rice, 1,650 ft. from S and 990 ft. from E lines of SE ¼ sec. 13-18-37.
T.D. 4,078 ft.; flowed 3 to 5 bbls. per hour in 8-hr. test.
Shell Pet. Corp. No. 1 State E, C W half SE SE sec. 14-18-37.
Drlg. 3,440 ft.
Gypsy Oil Co. No. 3 North Grimes, SE NW SW sec. 21-18-38.
T.D. 4,235 ft.; tubing to test.
Texas Co. No. 1 Mattern, C NW SW sec. 20-19-37.
Drlg. 1,388 ft
Phillips Pet Co. No. 1 Land Office, C NE SW sec. 19-19-37.
Drlg. 2,940 ft.
Barnsdall Oil Co. No. 2 Cooper, C SW SW sec. 7-20-37.
Drlg. 2,250 ft.

Monument Area

In the Monument district, Lea County, three wells were put on the completion list, and five locations were made, with rig up on one of them.

Republic Production Co. No. 1 Selby & Mavesty, C SE SW section 35-19-36, was acidized with 4,000 gallons at 3,791-3,940 feet and the well flowed 1,824 bbls. of oil in 24 hours through three-eighths-inch tubing choke. The accompanying gas production was estimated at 7,000,000 feet per day.

Sun Oil Co. No. 3 Weir, C SE NE section 36-19-36 was given 15,000 gallons of acid altogether, in pay at 3,867-3,945 feet. It was put on the pump and produced 372 bbls. of oil in 24 hours. There was some water with the oil but it was believed to be from the acid solution.

Gypsy Oil Co. completed No. 1 South-Graham-State, C SE SE section 2-20-36, the biggest new well of the week in the state. It produced 4,344 bbls. of oil, natural flow, through tubing in 24 hours with 2,500,000 feet of gas.

Texas Co. No. 1 State E, C SW SW sec. 1-20-36.
Drlg. 3,810 ft.; drill stem test at 3,772-3,810 ft. showed some gas.
Skelly Oil Co. No. 1 State-Monument, C SE SE sec. 13-19-36.
Set 7-in. casing at 3,780 ft.
Shell Petroleum Corp. No. 1 State C, C NE NE sec. 24-19-36.
Drlg. 3,894 ft.; small show of gas 3,556-3,659 ft.
Texas Co. No. 1 State F, C NE SE sec. 24-19-36.
Set 7-in. casing at 3,900 ft.
Amerada Pet. Corp. No. 1 State H, C SW SE sec. 1-20-36.
Drlg. 2,279 ft.
Skelly Oil Co. No. 1 State D, C SE SE sec. 1-20-36.
Drlg. 480 ft.
Superior Oil Co. No. 3 State, C SE NE sec. 2-20-36.
Set 9⅝-in. casing at 2,441 ft.
Amerada Pet. Corp. No. 1 Weir, C SW SW sec. 35-19-36.
Location.
Republic Production Co. No. 2 Selby & Mavesty, C NE SW sec. 35-19-36.
Rig.
Amerada Pet. Corp. No. 2 State D, C SW NW sec. 1-20-36.
Location.
Texas Co. No. 2 State E, C NW SW sec. 1-20-36.
Cellar and pits.
Amerada Pet. Corp. No. 1 State J, C SE SE sec. 2-20-36.
Location.

Jal Area

Stanolind Oil & Gas Co. completed a good well in the Jal pool in Lea County. No. 8A Cyrus Farnsworth, C NW NW section 18-26-37, had pay at 3,050-3,100 feet, total depth 3,114 feet. It flowed 3,114 bbls. the first 24 hours through tubing with 2,000,000 feet of gas.

Harry Leonard No. 1-B Justice, SW NW NW sec. 20-25-37.
T.D. 3,501 ft.; plugged back to 2,970 ft. for gas well; testing shutoff.
Byrd-Frost Inc. No. 3 Wells A, C SW NW sec. 11-25-36.
Set 9⅝-in. casing at 1,558 ft.
Texas Co. No. 1 Cagle B, C NW SW sec. 15-26-37.
Rigging up rotary.
Stanolind Oil & Gas Co. No. 11-B Farnsworth, C NE SW sec. 7-26-37.
Location.

Cooper Area

The Cooper area in Lea County saw two wells completed in the past week.

Skelly Oil Co. No. 4 Coates, C SE SE section 3-24-36, had pay at 3,500-44 feet and flowed naturally 2,112 bbls. of oil through three-fourths-inch choke on tubing in 24 hours, with 2,500,000 feet of gas.

Stanolind Oil & Gas Co. No. 2 Meyer B, C NW NW section 11-24-36, flowed 724 bbls. through tubing in 24 hours from pay at 3,558-62 feet.

Tide Water Oil Co. No. 1 Coats, C SW NE sec. 10-24s-36e.
T.D. 3,700 ft., plugged back to 3,565 ft., waiting for perforating gun.
Skelly Oil Co. No. 1 Harrison, C NW SW sec. 5-23-37.
Drlg. 3,675 ft. in lime and sand.
Gypsy Oil Co. No. 1 Lemunion, C NE NE sec. 28-23-37.
Shut down at 539 ft.
Gypsy Oil Co. No. 2 Cooper, C NW SE sec. 14-24-36.
Drlg. 3,455 ft.
Gypsy Oil Co. No. 2 Cooper, C NW SE sec. 23-24-36.
T.D. 3,616 ft.; showed 1,500,000 ft. of gas. Shut in.
Humble Oil & Ref. Co. No. 1 Hunter, C NW NW sec. 24-24-36.
Drlg. 2,894 ft.
Continental Oil Co. No. 2-A-15 Vaughan, 1,980 ft. E and 660 ft. S lines sec. 15-24-36.
Location.

Maljamar Area

Maljamar Oil & Gas Co. No. 5 Baish, C SW NE sec. 21-17-32.
Drlg. 2,385 ft.

Eddy County

R. D. Compton No. 7 Brainard, 200 ft. from S and 1,060 ft. from E lines of sec. 5-18-27.
Rigging up machine.
Emperor Oil Co. No. 2 Puckett, C W½ NW NE sec. 24-17-31.
Drlg. 2,828 ft.
Barnsdall Oil Co. No. 3 Dodd, C SE NE sec. 22-17-29.
T.D. 240 ft.; waiting for casing.
Fred Brainerd No. 1 Featherstone, CEL SW SW sec. 35-16s-28e.
T.D. 1,586 ft., shut down for orders.
Etz Bros. No. 1 State, C SE SW sec. 16-17s-30e.
Drlg. 3,091 ft.
Getty Oil Co. No. 7 Dooley, SW SW NW sec. 24-20s-29e.
T.D. 6,683 ft., dry and abandoned.
Red Lake Oil Co. No. 5 State, NW NW NE sec. 27-17s-28e.
T.D. 1,588 ft.; shut down for water.
W. C. Wells No. 1 State, C SE NW sec. 19-20-30.
Deepened from 1,670 ft. to 1,753 ft. Small show of oil, abandoned.
T. J. Haley et al No. 1 Rose, C NE NE sec. 28-24-37.
Rigging up machine.

Sandoval County

Continental Oil Co. No. 1 L-Ranch, 2,010 ft. from N and 330 ft. from E lines, sec. 2-13-14w.
Drlg. 5,913 ft.

Chaves County

Comanche Drlg. Co. No. 2 Sloop-Purcell, C NE NE sec. 15-11s-26.
Location abandoned.
Warman Oil Trust No. 1 Weldon & Hoar, NW NW SE sec. 9-14-25.
T.D. 1,683 ft. in sand; P.B. to 1,395 ft.; S.D.
Vierson & Brown No. 1 Robbins, C NW SE sec. 14-11-32.
Drlg. 3,616 ft.
Shell Pet. Co. No. 1 State-Endura, C NE NE sec. 24-21-35.
Set 9⅝-inch casing 3,202 ft.

NORTHWEST NEW MEXICO

Bernalillo County

Norine Realty Co., Inc., No. 1 Gallegas grant, SE SW NW sec. 19-11n-4e.
S.D. 630 ft.

Harding County

Khaay et al No. 1 DeBaca, C sec. 19-20n-31e.
Running 8¼-in. at 847 ft.; 10-in. at 250 ft. (first report).

McKinley County

Seward et al No. 1 State, NE NE NE sec. 2-19n-9w.
Spudding 250 ft. in shale (first report).
Forth & Hickerson No. 2 Santa Fe, NE NW NE sec. 29-20n-9w.
Drlg. below 200 ft. (formerly Lark Drlg. Co.).
Montrose Oil & Gas Co. No. 1 State, NE NE sec. 28-20n-9w.
Drlg. 400 ft.; 6⅝-in. at 300 ft.; small show oil at 312 ft.

S. Dysart et al No. 1 Bouton, E NW NE sec. 14-4n-19w.
O.W.D.D.; resumed at 1,365 ft.

Quay County

Danube Drlg. Co. No. 1 Will Wallace, NE NE SE sec. 12-9n-32e.
T.D. 1,000 ft.; 10-in. cmtd. at 505 ft.; C.O. at 930 ft.

Quay County Dev. Co. No. 1 Wallace, SW SW SE sec. 19-9n-33e.
S.D. 816 ft.; rainbows at 814 ft.; show of salt water at 775 ft.

Rio Arriba County

El Vado Structure Properties Co., Ltd., No. 1 Tierra Amarilla grant, NE sec. 26-3e-1e (unsurveyed).
S.D.; rig on loc.

Sandoval County

Continental Oil Co. No. 1 L-Bar Cattle Co., CEL SE NE sec. 2-13n-4w.
Drlg. 5,962 ft. in quartzite; black shale 5,941-60 ft.

San Juan County

The Continental Oil Co. No. 48 Tribal, NE SE NE section 2-29-19, Rattlesnake dome, was completed for 140 bbls. of oil in 24 hours with no water and a little gas from sand at 711-721 feet.

Jack Amenda No. 2, SW NW SW sec. 25-30n-12w.
Drlg. 400 ft.; 8¼-in. at 257 ft.; 10-in. at 40 ft. (first report).

Aztec Coop. Oil Co. No. 1 Greer, SE SE SW sec. 10-30n-11w.
S.D. 435 ft. for casing.

J. F. Cross et al No. 1 Wilson, SW SW SE sec. 17-30-11w.
S.D. 810 ft.

Cross & Poole No. 1 Aztec, sec. 1-30-11w.
Making water shutoff at 740 ft.

Kutz Canon O. & G. Co. No. 1 Day, SW SW SW sec. 20-28-10.
T.D. 4,400 ft.; fishing for tools.

R. C. Oswell No. 4 Government, SW SW NE sec. 34-30-11w.
S.D. 1,790 ft.

R. C. Oswell No. 6 Government, SE NE sec. 32-30-11w.
Spudded and S.D.

Reserve Oil Co. No. 6 Shaffer, SE NE SE sec. 36-22n-14w.
Location.

San Juan Pet. Co. No. 1 Lemley, NE SE SE sec. 32-30-11w.
S.D. 1,214 ft.

Southern Union Gas Co. No. 4 Government, C NW NE sec. 14-28n-11w.
Drlg. 50 ft.; 12½-in. at 20 ft.

Nick Spatter No. 1 fee, C NE SW sec. 32-31-11w.
Running 6⅝-in. at 1,780 ft.

W. R. Webb No. 2 fee, C NE NW sec. 4-30n-11w.
Location (first report).

San Miguel County

Cabra Springs O. & G. Co. No. 1 Thompson, SW NE NE sec. 22-12n-22e.
S.D. 4,067 ft.

Cabra Springs O. & G. Co. No. 2 West Pino Mesa, SW SW NW sec. 31-12-22.
S.D. 726 ft.

Pioneer Oil Co. No. 2 Montezuma, CSL SE SW sec. 14-15n-16.
Drlg. 300 ft.

Starr-Kennedy Oil Co. No. 3 Abrams, NE NE SE sec. 25-17-16.
Standing at 5,090 ft. after completing rig; to resume following fire.

Holmberg Interest No. 1 Cantwell, NW NW SW sec. 5-10n-9e.
S.D. 810 ft. (corrected).

Kelsey Clients Dec. Est. No. 2 State, C NW sec. 22-10n-10e.
S.D. 1,450 ft.

Torrance County

48 Pet. Co. No. 1 Greenfield, C NW SW sec. 17-9-8e.
Set 6⅝-in. at 1,027 ft.; C.O.

Bruce Fraier No. 1 Grazier, SE sec. 12-2n-3l.
Drlg. 1,210 ft. in granite wash water at 882-86 ft.

Union County

Quaker States Oil Co. No. 1 Zurich, NW SE SW sec. 2-21n-34.
S.D. 100 ft. for water.

Sierra Grande Oil Corp. No. 2 Rogers, C NE NW sec. 4-29-29.
T.D. 2,715 ft. in granite.

Valencia County

Dingle Dev. Co. No. 2 Tome grant, C NE SE sec. 26-6n-2e.
Rigged and S.D.

Ringle Dev. Co. No. 1 Tome grant, C SE SE sec. 36-5n-3e.
S.D. 400 ft.

Western Natural Resources Corp., Inc., No. 2 San Clemente, SE SE NW sec. 5-4n-1e.
T.D. 6,001 ft.

Pres-Sel Dev. Co. No. 1 Toltec, NE SW SW sec. 36-12n-10w.
T.D. 280 ft.; fshg. for tools.

UTAH

Summit County

Longwell Pet. Co. No. 1, SE SW SE sec. 35-2n-5e.
S.D. 1,210 ft.

Grand County

Columbia Crude Co. No. 1 Rath, SW SE sec. 12-25e-20e.
Drlg. 310 ft.

Utah Southern Oil Co. No. 1 Hyde, SE NW NW sec. 33-22n-22e.
Drlg. 1,039 ft.

Glenn Ruby et al No. 1 State, NE SE SE sec. 34-21s-16e.
Drlg. 555 ft.

Utah County

Diamond Oil Co. No. 4 Government, CSL SE NW sec. 16-8s-5e.
Drlg. 3,847 ft. (cor.).

Washington County

Arrowhead Pet. Co. No. 2 Escalante, NW NW NE sec. 19-42-16.
T.D. 4,114 ft.; P.B. to 3,250 ft.; shot and C.O.

Arrowhead Pet. Co. No. 1-A, SE SW NE sec. 1-42-15.
Drlg. 2,000 ft.

Anna V. Toney No. 1 Toney, CNL NE SE sec. 33-40n-11w.
Drlg. 370 ft. (first report).

W. W. Toney No. 1 Government, CNL SE SW sec. 18-41s-12w.
Drlg. 185 ft. (first report).

COLORADO

Archuleta County

The William E. Hughes estate No. 3 fee, in the Price district, has not yet been given a 24-hour test, but an unofficial report says that on a short pumping test it made about 20 bbls. in an hour. The company is preparing to go back into No. 2 fee, which was completed at 1,120 feet for around 50 bbls. a day, estimated, and will deepen it to the second sand encountered in No. 3 fee.

Quealy dome, Albany County, Wyoming, where the California Co. is completing its second large oil well

(Courtesy of Petroleum Information, Inc.)

Wm. E. Hughes estate No. 3 fee (unsurveyed), approx. SE cor. NW sec. 24-33n-2e, 40 ft. N and 440 ft. W of No. 2.
T.D. 1,140 ft.; S.I. for tankage.

Wm. E. Hughes estate No. 2 fee (unsurveyed), approx. SW sec. 24-33n-2e.
R.U. to deepen from 1,120 ft.

Oil City Pet. Co. No. 1-A Garnett, NW NE NW sec. 25-33n-2e.
S.D. 1,515 ft.; top Dakota series at 1,415 ft.

K. L. Kendrick No. 1 Crowley (unsurveyed), sec. 2-32-1e.
M.I.M.; (first report).

Adams County

Riddle Pet. Co. No. 1 Baxter, C SW sec. 2-3s-6w.
Preparing to resume at 700 ft.; will run tour.

Baca County

J. H. Everett et al No. 1, 330 ft. SW cor. sec. 24-32-48w.
Spudded water well.

Boulder County

Leslie R. Steele et al No. 1 Maxwell, SW NE NW sec. 24-1n-71.
Drlg. 2,412 ft.; slight show oil and gas.

Elbert County

The deep test to 6,000 feet on the Ramsey block in Elbert and Lincoln Counties began spudding November 23. The operation is being carried under the name of C. E. Lambert. The block consists of 50,000 acres on a structure running in a general north-south direction and interests are divided as follows: W. R. Ramsey, one-fourth; C. E. Lambert, one-fourth; Helmerich & Payne, Inc., who have the drilling contract, one-fourth; C. L. Wagner and C. D. Wagner, one-fourth.

C. E. Lambert No. 1 Union Pacific, C sec. 13-8s-57w.
Set 20-in. at 187 ft.; drlg. 1,680 ft. in shale.

Fremont County

Waterville Oil Co. No. 1 State, SE SE NW sec. 16-18s-69w.
Landed 5 3/16-in. at 2,780 ft.; shut off show of oil and S.W. and S.D. at 2,997 ft.

Grand County

Interstate O. & G. Co. No. 1 Hinman, NE NE NW sec. 11-2n-81.
S.D. 2,997 ft.

Huerfano County

S. W. Pressy No. 1 Ojo, SW NE sec. 10-28-69.
S.D. 2,550 ft.

Collins & Quinn No. 1, C W½ E½ sec. 4-28s-68w.
S.D. 3,810 ft. for fishing tools.

Colorado Oil Ref. Co. No. 1 North Park Coal, NW NW sec. 18-9n-78.
T.D. 1,805 ft.; fishing for baller.

Continental Oil Co. No. 3 Hoyle, NW NW NE sec. 34-9n-78.
T.D. 5,258 ft.; top Morrison at 5,183 ft.; cmtd. back and drilled out cmt. to 5,041 ft.; perforated csg. at 5,020-38 ft. and preparing to test the Dakota.

Jefferson County

Ruby Hill O. & G. Co. No. 1 Braden, SE cor. sec. 24-4n-69.
S.D. 4,280 ft.

La Plata County

McGarr Pet. Co. No. 1 Pinon Mesa, CSL NE NE sec. 34-33n-12w.
S.D. 405 ft.; (correct).

Las Animas County

Mountain States Oil Corp. No. 1 Nikola, on the Garcia dome, which is intended to be a test to the Lakota and possibly the Sundance, has resumed operations and endeavoring to shut off caving ground and recover tools. The company is seeking an additional supply of gas for the Mountain States gasoline plant in the field which is operating at capacity from five wells on production. The gasoline plant has been in operation for seven years and obtains a recovery of around 3 gallons to the 1,000 feet of gas. The wells hold very close to the original pressure although they have not been reconditioned since completion. The company operates several filling stations in the district and markets its own products through these outlets. This is a peculiar operation in that some old wells drilled more than 40 years ago on private land are still furnishing gas to the owners for domestic purposes. The Lakota has never been tested and the drilling well is seeking that objective in the hope of encountering oil.

Mountain States Oil Corp. No. 1 Nickola, C NE NE SE sec. 10-34-62.
T.D. 1,740 ft.; used aqua-gel at 1,640 ft. and C.O. and fishing for tools.

Lincoln County

Consolidated Smelting & Metals Co. No. 1 Hancock, NE NE sec. 7-17s-52.
S.D. 1,780 ft.; (correct) for winter.

Moffat County

Stanolind Oil and Gas Co. No. 16-X Parkinson, SE NW NW section 23-4n-92, Iles dome, was completed in the Sundance for 10 bbls. an hour on a choke on the tubing. Total depth is 3,443 feet. Top of the Sundance was at 3,425 feet.

The first operation on the Moffat dome for some time is the Texas Co. No. 7 Basil Knowlton, which is preparing to deepen from the Dakota at 3,891 feet to the Sundance.

Indications that additional drilling on the Bell Rock structure 9 miles west of Craig will take place in the near future are shown in the leasing of 700 acres on the structure by the Ohio Oil Co. Stanolind Oil & Gas Co. still has a block of leases on the structure on which it drilled its No. 24 Hannewalt, NE SE SE section 4-6n-92, in 1929 and had 35,000,000 feet of gas at 3,040 feet, but abandoned the well when bottom water could not be successfully shut off. It was planned to drill another test at that time, but this was subsequently changed and the Ohio company drilled on the Craig dome, 3 miles from Craig, instead and opened a new gas pool.

Texas Co. No. 7 Knowlton, NE cor. Lot 8, sec. 10-4n-91w.
Pulling 6¼-in. to deepen from 3,891 ft. to the Sundance.

Montezuma County

McElmo Oil Co. No. 1 West, NE NW NE sec. 21-26n-17w.
T.D. 3,705 ft.; fishing for tools.

Morgan County

Swisher et al No. 1 Lunt, 92 ft. W of E line and 360 ft. N of S line, sec. 3-4n-60.
T.D. 1,301 ft.; pulling 4-in. to replace leaky joint at 790 ft.; will ream 200 ft. open hole to bottom and rerun.

Park County

South Park Co. No. 1 State, SE SE SW sec. 16-11s-75w.
T.D. 3,720 ft.; rerunning 6¼-in. after replacing damaged shoe.

South Park Oil Co. No. 1 Lebert, NE NE NW sec. 21-11s-75w.
Cellar.

Prowers County

Trojan O. & G. Co. No. 1 Lotus Oil, NW NE NE sec. 15-23-4n.
Reported run, 4⅝-in. at around 5,800 ft.

Routt County

Mid-Colo Pet. Co. No. 1 Omhalt, NE NE SE sec. 29-4n-87w.
T.D. 2,820 ft. in top of Morrison; U.R. 8¼-in. from 2,725 ft. to set on top of Lakota and test oil shows.

Washington County

Fremont Buttes Oil Co. No. 1 Gilcrest, SW SE SW sec. 22-3n-53w.
S.D. 200 ft.; 16⅝-in. at 137 ft.

Larimer County

California Co. has acquired acreage on the Round Butte structure north

of the Wellington pool and south of the Wyoming line and is expected to drill a test to the Sundance. This structure attracted attention before the discovery well was drilled at Wellington and the Cactus Petroleum Co. drilled a well to the Lakota in the NE cor. section 12-11n-69 and had 1 foot of saturation in the top of the Lakota, followed by water. Total depth drilled was 1,829 feet. Stanley Barrows, in the NW NW SE section 7-11-68, had a show in the top of the Sundance at 2,216 feet, followed by water. It was abandoned at 2,375 feet. California Co. acquired its block following a seismograph survey.

WYOMING

Albany County

The California Co. is completing its second producer on the Quealy dome in Albany County where it brought in the discovery well last year in the Muddy sand in its No. 1 Holst, followed by a discovery in the Dakota the past spring upon drilling deeper. Its No. 2 Holst is a diagonal offset on the northwest to the discovery. It drilled through the Muddy at 3,078-3,100 feet, but did not test and encountered good saturation in the Dakota at 3,164-3,230 feet. The Lakota was missing and it drilled the Morrison to 4,207 feet when cores showed it was drilling in vertical dips. It then plugged back to 3,267 feet to test the Dakota and swabbed 30 bbls. an hour. It is estimated good for around 1,000 bbls. a day on the pump. The test was headed for the Sundance but after drilling more than three times the normal thickness of the Morrison, it was decided to plug back. No. 1 Holst made 600 bbls. initial from the Dakota at a total depth of 3,256 feet.

Ohio Oil Co. will drill a second test on the Big Hollow structure in its No. 2 Emery, nearly 2 miles to the north of No. 1 Emery, which was abandoned a few weeks ago at 2,579 feet after missing the Dakota and Sundance and encountering water in the Tensleep.

California Co. No. 2 Holst, SW NE SE sec. 13-17n-77.
T.D. 4,307 ft.; P.B. to 3,267 ft.; testing.
California Co. No. 1 Wilson, NW SW SW sec. 18-17n-76.
S.D. 1,010 ft. (cor.) for water.
Ohio Oil Co. No. 2 Emery, NE SE NE sec. 18-15n-75w.
Spudding; 11¾-in. at 68 ft.

Big Horn County

Ohio Oil Co. No. 3 Sessions, NW cor. section 33-56-97, Garland-Byron field, was completed at 4,234 feet, total depth, in the Madison lime as a flowing well, making 315 bbls. the first 24 hours. Top of the lime was at 3,925 feet. The well is located on Garland unit No. 3, the unitized area being controlled by the Ohio company and the Utah Southern Oil Co.

J. W. Bales No. 1 Parker, C SW SW sec. 23-4-89.
Drlg. 664 ft.
Peter Evanoff et al No. 1 McAllister, Lot 40, NW NE SE sec. 3-55n-97w.
Drlg. 2,800 ft.
Jean Oil Co. No. 1 Howell, NW SE NE Lot 63, sec. 32-55n-97.
S.D. 1,190 ft.; cor.).
Kinney-Coastal Oil Co. No. 3 Government, SW NW NE sec. 24-56n-98w.
T.D. 4,234 ft.; sidetracking at 3,900 ft.
W. S. Gilbert No. 1 Zaring, SE SE SE sec. 35-52n-93w.
Drlg. 1,041 ft.
Ohio Oil Co. No. 4 Byron Union, SW SW NE sec. 22-56-97.
Drlg. 3,100 ft. in shale.
Ohio Oil Co. No. 1 Lindsay, SW SW NE sec. 23-56n-97w.
Digging cellar (first report).
Montana-Wyoming Oil Co. No. 1 Allen, 210 ft. from N line, 936 ft. from E line, Lot 52 (SE NW SE) sec. 32-56n-97w.
T.D. 3,200 ft. (cor.); straightening crooked hole at 2,650 ft.
Peay Oil Co. No. 2 Government, SE SE SE sec. 10-55n-97w4.
Rig (cor.); S.D. indefinitely.
J. H. Shaffer No. 1 Keachie, C SW SW sec. 5-49-91.
Drlg. 1,375 ft.
W. O. Taylor et al No. 1 Hoskins, Lot 5. (SE SE) sec. 25-56n-97w.
Resumed at 5,275 ft.; will set whipstock and drill by 450 ft. of D.S.
Wyoming O. & R. Co. No. 1 Evans, NE NE SW sec. 12-49-91.
Set 1¼-in. at 85 ft. (cor.) and S.D.

Carbon County

Sinclair-Wyoming Oil Co. No. 9 Wertz, NE NW NW section 7-26-89, Wertz dome, was completed at a total depth of 3,670 feet as a gas well in the Lakota at 3,632-70 feet and gauged 13,000,000 feet with a rock pressure of 385 pounds. The 5⅝-inch is at 3,635 feet. It topped the Frontier at 2,260 feet.

Ohio Oil Co. and California Co. No. 2 State, C NW NW sec. 36-21n-79w.
T.D. 5,810 ft. in red beds; cmtd. pipe and testing third Sundance at 3,760-5,810 ft.; water in second Sundance at 5,540-5,723 ft.; first Sundance made 135 bbls. an hour on drill stem test.
Ohio Oil Co. and California Co. No. 1 Union Pacific, Acct. J, NE SW NW sec. 25-21-79w.
T.D. 4,375 ft.; cmtd. back to 3,713 ft. to straighten; redrlg. at 3,882 ft.
Ohio Oil Co. No. 3 State, CEL SE NE sec. 34-20n-78w.
T.D. 3,255 ft.; running liner to top first Sundance at 3,210 ft.; will complete at this depth.
General Pet. Corp. No. 1 Whitford, SW SE SE sec. 24-20-84.
Drlg. 5,715 ft.
General Pet. Corp. No. 1 Union Pacific, C SW SW sec. 19-20-83.
S.D. 5,931 ft.; may be deepened.
Shirley-Wyoming Oil Co. No. 1 Government, NW NE sec. 2-26n-80w.
Drlg. 1,300 ft.
Union Oil Co. of Calif. and Mutual Oil Synd. No. 1 Union Pacific, 1,890 ft. from E line and 1,320 ft. from S line, sec. 1-18-78w.
Drlg. 3,050 ft.

Converse County

Chadron-Osage Oil Co. No. 1 State, SW cor. sec. 16-32-69.
Set 12½-in. on bottom at 1,480 ft. and S.D.
Continental Oil Co. No. 60 State, NW SW NE sec. 9-33-76.
Coring at 6,237 ft.; white sand and lime at 6,131-49 ft.; hard lime at 6,149-60 ft.
Otto Olso et al No. 1 Carey, sec. 6-32-71.
S.D. 642 ft.
John Ackard No. 1 Daniels, SW SW SE sec. 17-32-71.
Drlg. 3,000 ft.

Fremont County

Mid-American Oil Co. No. 3 Government, NW NE SW sec. 14-28-92.
Drlg. 1,951 ft.
Nelson & Poupiert No. 3 Enos, Lot 7, sec. 27-3n-1w.
S.D. 1,100 ft.

Hot Springs County

California Exploration Co. No. 2 Government, NW SW NW sec. 4-44-96.
T.D. 4,235 ft.; moving off rotary; will cement pipe and complete with cable tools.
Ohio Oil Co. No. 72 Millsiron Cattle Co., NE SE SE sec. 19-46n-98w.
T.D. 3,956 ft.; running 7-in. to top of Embar at 3,925 ft.; heavy saturation at 3,925-41 ft.
Stanolind O. & G. Co. No. 20 State-Ridgely, SE NE SE sec. 19-46n-9w.
S.D.; derrick.

Lincoln County

Senrab Oil Co. No. 3 Government, N SE NW sec. 10-26-113.
S.D.O. after cmtg. 5 3/16-in. three times at 1,012 ft. and failing to set.
Superior-Wyoming Oil Co. No. 2-B, Lot 3, (NW NW), sec. 3-26-113w.
S.D. 890 ft.

Natrona County

Bessemer Oil Co. No. 9, CWL NE NW sec. 18-33n-82w.
Drlg. 1,250 ft.; first report.

Niobrara County

Black Hills Ref. Co. No. 1 Wyrick, C SW NE sec. 28-36n-64w.
Derrick; W.O. rotary.
Black Hills Ref. Co. No. 1 Mills Est., C SE NW sec. 27-36n-64w.
Location.
J. H. Huber Co. No. 1 Joss, NE SE NW sec. 6-35n-65w.
T.D. 4,096 ft.; P.B. to 4,070 ft.; swabbing oil and water.
Interstate O. & R. Co. No. 1 Morrell, NW NE SE sec. 9-19-51.
T.D. 3,030 ft.; P.B. to 2,835 ft.; S.D.
Fall River Royalty & Producers Co. No. 5-L Briggs, CSL NE NE sec. 2-39n-61w.
Drlg. 385 ft.
Ohio Oil Co. No. 6 Converse Sheep, 610 ft. from E line and 680 ft. from S line SW SE sec. 32-36n-65w.
Location (first report).
Ohio Oil Co. No. 7 Converse Sheep, C NW SE sec. 32-36n-65w.
Stdg. rigged.
Ohio Oil Co. No. 5 Converse Sheep, C SE SW sec. 32-36-65w.
Rig up.
Ohio Oil Co. No. 7 Lamb, C NW NE sec. 5-35n-65w.
Drlg. 3,731 ft. in shale between second and third Sundance.
S. & H. Dev. Co. No. 1-A Olinger, SE NE NW sec. 1-36-63.
T.D. 1,674 ft.; R.U. to pull and reset 5 3/16-in. at 1,650 ft. to S.D. Dakota water and test show in Lakota.
Riggs Drlg. Co. No. 2 Spaugh Land & Livestock, SW SW SW sec. 32-34n-65w.
M.I. rig; (first report).

Park County

Continental Oil Co. No. 4 Northern Pacific, NW NE SE sec. 23-58n-98w.
Location.
Geo. T. Beck No. 1 fee, NW SE NW sec. 27-33-101.
Drlg. 1,681 ft.
Garland Oil Co. No. 2 Government, SE NE NW sec. 14-56-98.
S.D. 2,160 ft.
Resolute Oil Co. No. 1 State, C SW SW sec. 16-57-101.
S.D. 3,608 ft.

Sheridan County

Beaver Creek Oil Synd. No. 1 Allison, SW SE sec. 15-55-85.
S.D. for the winter at 2,865 ft.

Sublet County

Pines-LaBarge Oil Co. No. 2 Government. CEL NE NW sec. 18-27-113.
S.D. 520 ft.

Sweetwater County

Wilmington Oil Co. has resumed operations in its No. 1 fee in the Red Desert district which has been drilling at intervals for the past 16 years. Last year it drilled from 2,860 to 3,115 feet and shut down in the Mesa Verde. Contract has been let to Erle Ottman, of Oklahoma City, to carry hole to 5,000 feet. The company owns 1,080 acres in fee surrounding the test.

Wilmington Oil Co. No. 1 fee, NW NW NW sec. 18-26n-98w.
Resuming at 3,115 ft.
Mountain Fuel Supply Co. No. 1 Brooks, C NW NE sec. 15-16n-104w.
Drlg. 1,372 ft.
Vermillion Oil Co. No. 1 Government, SW SW SW sec. 7-12n-99w.
Mat. on ground; S.D. until spring.
Sinclair-Wyoming Oil Co. No. 6 U.S.P., SW SW NW sec. 11-26n-90w.
S.D. 2,330 ft.

Uinta County

Druscilla Connell et al No. 5 Government, SW NW NW sec. 24-15n-118w.
Drlg. 1,036 ft.
Intermountain Pet. Corp. of Utah No. 1 Union Pacific-Hayes, SW NW SW sec. 24-19n-118w.
Drlg. 1,571 ft.
W. D. Marshall No. 1 Government, NW SW SE sec. 12-15n-118w.
Drlg. 810 ft.
Ragan Pet. Co. No. 4, NW SW NW sec. 13-15n-118w.
Drlg. 1,040 ft.

Washakie County

Ariton & Doyle No. 1 Government, SW SW SE sec. 29-48-91w.
Drlg. 1,036 ft.
Wyoming O. & R. Co. No. 2 Government, NW SW SW sec. 31-48-90.
Drlg. 277 ft.
Wyoming O. & R. Co. No. 1 Frison, NW SW NW sec. 14-48-91.
S.D. 1,710 ft.

Weston County

The U. S. Geological Survey has issued a new areal and structure map of the Osage field covering about 80 square miles. It is the result of detailed field investigations by geologists C. E. Dobbin, J. C. Miller and K. L. Walter of the Survey staff, in September and October, 1934, required as a basis for administration of the mineral-leasing laws and regulations pertaining thereto. The map shows the major features of drainage, roads, and oil field development and the lines and subdivisions of the public land survey.

A few copies of this map are available for free distribution at the office of the Geological Survey, 1216 Interior Building, Washington, D. C.; 523 Customhouse, Denver, Colo., Midwest, Wyo., and 305 Federal Building, Casper, Wyo.

Three completions were reported in the Osage field. Grytten Holm No. 1 Apostal, NW SE SW section 4-46-6w, made 3 bbls. a day from sand at 220 feet. The Federal Oil Co. No. 8 Government, C NE SE section 15-46-6w, swabbed 90 bbls. from sand at 2,131-43 feet and will shoot. The Des Moines-Osage Syndicate No. 11, CNL NE NE section 25-46-6w, filled 500 feet in an 8-inch hole in 16 hours from sand at 1,418-35 feet and will shoot.

Conway Oil Corp. No. 1 Government, C SE NW sec. 7-41-6w.
Drlg. 2,335 ft.
Beaver Creek Oil Synd. No. 1 State, C NE NE sec. 23-44-6w.
Spudded and S.D.
Clenn Taylor No. 1 Bock, C SW NE sec. 3-45n-6w.
Drlg. plug.; 8¼-in. at 400 ft.
Henry Egert No. 2, SW NE NE sec. 8-46n-6w.
Drlg. 160 ft.

MONTANA

Big Horn County

Big Horn O. & G. Co. No. 24, NW NE NE sec. 26-1s-33e.
Drlg. 595 ft. (first report).
Daniels Pet. Co. No. 1 May, C SE SE sec. 13-1s-33e.
Cmtg. 6⅝-in. at 3,000 ft.
Enterprise Oil Co. et al No. 2 Lynde, SW SW SE sec. 21-6n-35e.
S.D. 3,590 ft.

Carbon County

Bailey Round Butte Oil Co. No. 1, 1,130 ft. W of E line and 3,140 ft. N of S line, sec. 3-6s-23.
Drlg. 1,500 ft.

Cascade County

C. Leonard Smith No. 1, NE NE SW cor. 14-22n-21.
S.D. 13 ft.

Choteau County

Mills & Decker No. 1, NE NW sec. 29-27n-13e.
Rig up.

Fallon County

Montana-Dakota Utilities Co. No. 1, NE NW sec. 17-3n-62e.
Drlg. 5,590 ft.

Fergus County

Button Butte O. & G. Co. No. 1 Woodward, SE SE SW sec. 20-14n-24.
S.D. 3,095 ft.
Kalispel-Kevin Oil Co. No. 1 Emmons, 220 ft. W of E line and 2,140 ft. N of S line, sec. 6-20-18.
Drlg. 2,240 ft.; carrying 5 3/16-in. at 2,200 ft.
S. W. Pennock et al No. 1 Nordheim, NW NE NE sec. 6-21n-18e.
S.D. 480 ft. (corrected).
H. C. Rowland et al No.1, NE NW NE sec. 12-17n-23e.
Drlg. 821 ft.
E. A. Fenholt No. 1, NW NW SW sec. 24-21n-17e.
Rigging up.
Judith Operating Co. No. 1 Government, C SW SW sec. 26-22n-17e.

Gallatin County

Montana Gas & Pet. Corp. No. 1 Adams, SE SE SE sec. 36-2n-1e.
E.D. 2,400 ft.
Ben W. Ryan No. 1 Tice, NE NE NE sec. 28-1n-2e.
Drlg. 2,610 ft.

Glacier County

Five completions, one well abandoned and three new locations were reported in the Cut Bank field. The most important completion was Cobb-Pardee No. 1 Morrison, CWL SW NW section 24-33-6w, on the west side, 2 miles south of the town of Cut Bank, 2 miles west and the same distance north of the nearest producers. It proves up considerable territory as promising for producers. It showed a somewhat new sand condition. It was completed at 2,910 feet with 1,200 feet of oil in the hole, but has not had a swabbing test. The Sunburst at 2,741-56 feet was dry. It topped the Cut Bank at 2,791 feet and the Ellis at probably 2,865 feet, the exact contact being indefinite. It had only 200 feet of oil at 2,854-65 feet, and oil increased to 700 feet at 2,877-88 feet. Oil increased to 1,200 feet at 2,888-95 feet. It is possible that instead of a new pay horizon, sand may have run in from above. The elevation is 3,548 feet.

The failure was R. C. Tarrant No. 1 Thatcher Bond & Mortgage, SE SW NW section 27-32-5w, to the south of

the pool, 2 miles south of the Texas Co.'s No. 1 State on section 16. It was drilled to 2,777 feet and had the Cut Bank at 2,712-27 feet. The elevation is 3,603 feet. It was plugged and abandoned. The Consolidated Gas Co. No. 1 Simero, C NE SE section 1-33-6w, swabbed 189 bbls. first 24 hours and 95 bbls. the third period, at a total depth of 2,935 feet. There was a show of oil in the Sunburst at 2,865-82 feet. The Cut Bank was at 2,887-2,917 feet and the pay at 2,865-82 feet.

The Montana Power Gas Co. No. 1 Connolly, NW cor, section 7-33-5w, swabbed 125 bbls. first 24 hours and 73 bbls. the second period at a total depth of 2,913 feet. The top of the Cut Bank was at 2,880 feet and the pay at 2,900-10 feet. The elevation is 3,754 feet.

The P. M. K. Petroleum Co. No. 2 Haglund, Sr., NW NW NE section 14-34-6w, swabbed 90 bbls. first 24 hours from the pay at 2,865-77 feet. Total depth is 2,882 feet.

McCabe & Jeffries No. 2 Government, SW NE SE section 32-33-5w, an isolated well in the southern part of the field, a mile from the nearest producer, but in what was considered proven territory, swabbed 275 bbls. first 24 hours and 160 bbls. the third period, at a total depth of 2,884 feet. The pay was at 2,859-82 feet. The elevation is 3,689 feet.

A. B. Cobb No. 5 Walberger, C NE NE sec. 35-35n-6w.
Rig.

Lon Crumley No. 2 Jones, C NE SW sec. 31-34n-5w.
Drlg. 1,300 ft.

Fowler et al No. 1 Tweedy, SW SE SE sec. 25-33-6w.
Preparing to set 7-in. at 2,797 ft.; top Cut Bank 2,795 ft.; 1,000 ft. of oil.

Indian Oil Co. No. 3 Britton, C NE SE sec. 14-34n-6w.
Rig (first report).

R. C. Jeffries No. 4 Uukena, NE NE NE sec. 12-33n-6w.
Drlg. 1,715 ft.

McCabe & Jeffries No. 1 Rasmussen, NE SW SE sec. 32-33n-5w.
Location (first report).

Montana Power Gas Co. No. 1 Benish, C SW NW sec 9-33n-5w.
Location (first report).

Montana Power Gas Co. No. 2 Peterson, 1,000 ft. E of W line and 2,640 ft. S of N line, sec. 30-35n-6w.
Drlg. 2,120 ft.

Montana Power Gas Co. No. 1 Rigney, C NW NE sec. 2-35n-6w.
Drlg. 2,910 ft.

Neil Spencer's No. 1 Tweedy, CSL SE SW sec. 25-33n-6w.
M.I.M. (first report).

Santa Rita O. & G. Co. No. 1 Lander, C N half SE sec. 16-35n-6w.
Running 7-in. to 2,922 ft.; show of oil at 2,915-22 ft.

Santa Rita O. & G. Co. No. 1 Shearon, 660 ft. S of N line and 348 ft. W of E line, sec. 34-36n-6w.
Rigged.

Santa Rita O. & G. Co. No. 1 Corey, NE NW SE sec. 5-32n-5w.
Rigging (formerly Bright).

R. C. Tarrant No. 4 Miller, 100 ft. N of C SE NE sec. 24-34-6w.
Drlg. 3,625 ft.

R. C. Tarrant No. 2 Hope, NW SW SW sec. 18-34-6w.
Drlg. 1,730 ft.

R. C. Tarrant No. 4 Getty, NE NE SW sec. 2-34n-6w.
Spudding 250 ft.

R. C. Tarrant No. 6 Britton, C SE SW sec. 12-34n-6w.
Rig; S.D. until spring.

R. C. Tarrant No. 1 Williams, C SE NE sec. 11-34n-6w.
Drlg. 2,550 ft.

R. C. Tarrant No. 2 Jones, NW NW SW sec. 31-34n-5w.
Stdg. rigged.

Yukon Oil Co. No. 1 Federal Land Bank, 440 ft. N and 660 ft. W of SE SW sec. 11-34n-6w.
Location.

Liberty County

Western Natural Gas Co. No. 1 Wallace, C SW NW sec. 15-37n-4e.
Drlg. 1,240 ft.

Park County

Ben W. Ryan et al No. 1, NE sec. 28-2n-11w.
Ready to spud.

Petroleum County

H. H. Schwtr No. 1 Government, NE SW SW sec. 11-15n-29e.
Completing as repressuring well.

Pondera County

Dave Mills No. 1 Erickson, SW SW SW sec. 3-27n-4w.
T.D. 1,530 ft.; fshg. for tools.

Texas Co. No. 1 Unit 2, NE SW SW sec. 21-30n-5w.
T.D. 245 ft.; fshg. for tools.

Phillips County

Little Rocky Dev. Co. No. 1, SE SE SE sec. 17-24-24.
S.D. to finance at 352 ft.

Phillips Dev. Co. No. 6 Government, NW SW sec. 2-24n-24e.
S.D. 659 ft.; show gas at 568-604 ft.; water at 650-59 ft.

Toole County

There were two completions in the Kevin-Sunburst field. Nepstead-Montgomery-Farther No. 1 Haugen, NE NW NE section 11-35-3w, is estimated at 15 to 20 bbls. from the Ellis-Madison at 1,848-53 feet. R. C. White No. 1 Haugen, NE NE SE section 11-35-3w, is estimated at 100 bbls. from the Ellis-Madison at 1,800-12 feet. It is shut in for connections. There was considerable oil in the Sunburst at 1,530-58 feet. William McKnight No. 2 Seabrook, SW NW SW section 19-35-2w, reported a completion last week, made 50 bbls. initial on the pump.

Carscallen & Mitchener No. 1 Greguer, C S half NE sec. 10-34n-2w.
S.D. 1,553 ft.

Cassidy and Cassidy No. 1 Veitch, 220 ft. W of E line, 660 ft. N of S line, sec. 31-35-2w.
S.D. 1,630 ft.

Cassidy & Crumley No. 1 Carlson, sec. 22-35n-3w.
T.D. 1,883 ft.; water; will P.B. to 1,760 ft. and shoot.

A. E. Crumley No. 8 Shaw, SE NW SE sec. 35-36n-2w.
Rig (first report).

Huso Brothers No. 3 Government, SW NE SE sec. 14-35n-3w.
T.D. 1,185 ft.; drlg. by bit.

Fred R. Munger No. 1 Government, SW NE NW sec. 13-35-2w.
S.D. 1,492 ft.

W. M. Hanlon No. 2, SW NW SE sec. 27-35n-3w.
T.D. 1,712 ft.; acidized and C.O.

Nepsted-Montgomery-Farther No. 1 Grass, 660 ft. W of E line and 220 ft. N of S line, sec. 17-35n-1w.
Rigging.

Ohio Oil Co. No. 8 Reeg, NW NW SW sec. 14-35n-2w.
Drlg. 865 ft.

E. O. Reckoff No. 2 Government, SW SW NE sec. 3-35-3w.
S.D. 1,034 ft.

Stock Brothers No. 3 Haggerty, NW SW SW sec. 13-35n-2w.
S.D. 1,524 ft.

C. Leonard Smith No. 1 Eckhoff, C SE sec. 6-33n-2e.
S.D. 575 ft.

C. Leonard Smith No. 1 Federal Land Bank, C NE NE sec. 11-33n-1e.
Spudding at 175 ft.

C. Leonard Smith No. 1 L. Halverson, C NE SE sec. 18-33n-2e.
S.D. 730 ft.; tested 500,000 ft. of gas at 720 ft.

C. Leonard Smith No. 1 H. Halverson, NW NE sec. 18-33n-2e.
Drlg. 560 ft.

Dillon Opens Office

Gerald H. Dillon has opened an office at 30 Church Street, New York City, where he will act as an agent and broker for the purchase and sale of petroleum and petroleum products. Mr. Dillon is well known in the oil industry in this country and Europe from his long affiliation with it. His association dates back to the early

GERALD DILLON
(Photo. by Blank & Stoller)

days in Tulsa, where he opened and established a sales office for the Bethlehem Shipbuilding Corp., taking charge of design and sales of paraffin wax plants and equipment for the Mid-Continent territory. Before going to Tulsa he was production engineer for refinery equipment at the Moore plant, Bethlehem Shipbuilding Corp., at Elizabethport, N. J. Leaving Tulsa, he was placed in charge of refinery equipment sales for the entire country at Bethlehem, Pa., and New York City.

Resigning in 1926 he became associated with the Walter E. Lummus Co. of Boston to promote the development and sales of continuous fractional distillation and the Coubrough process which that company was then pioneering in the oil industry. In 1928 he was appointed sales manager of the company and continued in that capacity after the Lummus company was acquired by the Babcock & Wilcox Co. and Superheater Co. interests, resigning this year to establish his own business.

British Tankers on Call

MONTREAL, Quebec, Nov. 30.—Masters of oil tankers forming the large fleet owned by the British Admiralty, and operated under charter by various commercial interests, have received orders to hold themselves and their vessels in readiness for Admiralty service.

F. E. Hatfield, production superintendent for the Gulf Production Company, Odessa, Tex., is making an extended tour of Mexico.

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Among Gulf Coast Drilling Contractors

Ben (Bud) Coyle apparently has the distinction of opening up the first production for the Pan American Producing Co., which entered into activities on the Gulf Coast a few months ago. At Port Barre, in Coastal Louisiana, a new sand was encountered at No. 1 Hass & Hierch, which tested several hundred feet of oil a drill stem test and casing is being set preparatory to testing. In the Mud Lake area, in Cameron Parish, for the same company, No. 1 Lutcher-Moore is drilling below 2,500 feet, and in St. Mary's Parish, for Herton Oil Co., a showing of oil and gas was encountered in No. 1 Roane, a wildcat test located due west of Charenton.

Nicklos Drilling Co. has made an average of 1,000 feet in seven days on two wells which are being drilled for Continental Oil Co. at the Tepetate field in Acadia Parish. On No. 1 Marcantel and No. 1 Macabees, which were started about 10 days ago, both wells are now drilling below 7,500 feet and should reach the 8,300-foot sand within two or three days.

Loffland Brothers received the contracts for two tests to be drilled in the new St. Martinsville field in St. Martin Parish by the Coastal Plains Oil Corp. They are located northeast of the discovery well and will be drilled to the 5,500-foot sand. They are also drilling an important outpost test for Continental Oil Co. on the Macabees lease in the Tepetate field, Acadia Parish. Late in the week it was drilling below 8,240 feet and should reach the sand over this week end.

Glenn H. McCarthy, Inc., has two wells on the sand and is preparing to move in a rig for No. 5 White, located in the Anahuac field on Humble Oil & Refining Co.-McCarthy's White lease in the north extension area. On the same lease, No. 4 White topped the sand at 7,021 feet and it is to be completed at a total depth of 7,083 feet. In the Conroe field, on the Bertrand lease, No. 2 Bertrand is bottomed in oil sand at 5,133 feet and should be completed during the week. The lease is owned by McCarthy, Inc.

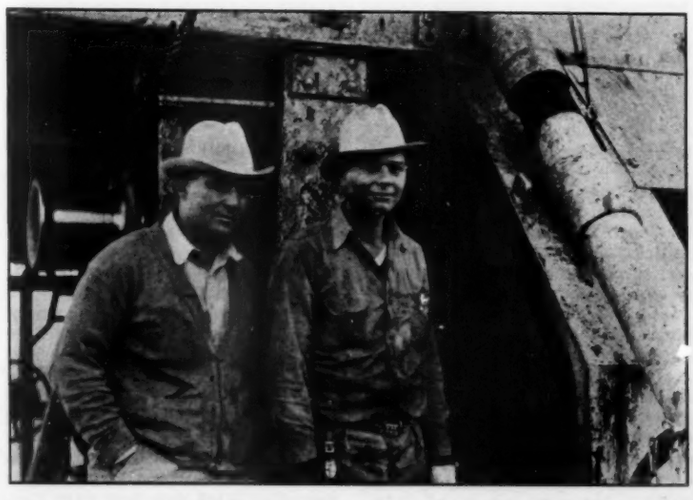
Smith & McDannald were awarded the contract by Stanolind Oil & Gas Co. for No. 1 Berger, located in the southeastern part of the Hastings field, Brazoria County, and are moving in a rig for No. 1 Evans, in the Long Lake field, to be drilled for Tide Water Oil Co. Four other rigs are running at South Houston, Louise and Big Hill fields.

C. & C. Drilling Co. has reached the sand on a deep test located in the Dickinson field for Coast Petroleum Co. The well was drilled to a depth of 8,657 feet within four weeks drilling time and casing is being run preparatory to testing four possible oil sands below 8,415 feet that were indicated on an electrical coring test. The well is located on the Maco Stewart lease and is the second to be drilled on the lease for the company. For Cockburn Oil Co. the company has completed No. 1 Lockin as a dry hole. It was a wildcat test located in San Jacinto County.

Rutherford Drilling Co. received the contract for No. 2 Gray, to be drilled in the Placedo field for American Liberty Oil Co. For the Skelly Oil Co. at the Bay City field, No. 1 Johnson has reached the 7,400-foot sand and a drill stem test was to be made over the week end.

Al Buchanan, San Antonio, is operating 13 rigs in Duval and San Patricio Counties. These include a newly purchased unit, one of the largest in Southwest Texas. It is drilling in the Plymouth field, San Patricio County, for Plymouth Oil Co. During the week, Buchanan completed producers for Plymouth Oil Co. in the Plymouth field, Shell Petroleum Corp. in Loma Novia and for Buchanan and Blanco Oil Co. in Seven Sisters.

(Continued on Page 63)



Left to right: M. H. Brown, tool pusher, and J. D. Poe, driller, Loffland Brothers Drilling Co., taken at the company's rig at the Tepetate field, Acadia Parish, Louisiana, which is being used in drilling No. 1 Macabees, for Continental Oil Co.

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Oklahoma Operations

By JAMES McINTYRE

GARVIN COUNTY WILDCAT IS NEW FEATURE TEST IN STATE

The regular monthly meeting of Oklahoma operators resulted in the recommendation the past week to keep production within the Bureau of Mines estimate of the average daily market demand of crude for the month of December amounting to 480,100 bbls. New wells in the Class "D" group brought an increase of 1,800 bbls. per day and in order to bring last month's allocation of 492,000 bbls. daily for the state down to the December figure it was necessary to take a horizontal cut for the rest of the prorated pools, with a probable change in the production of the unprorated areas to balance out.

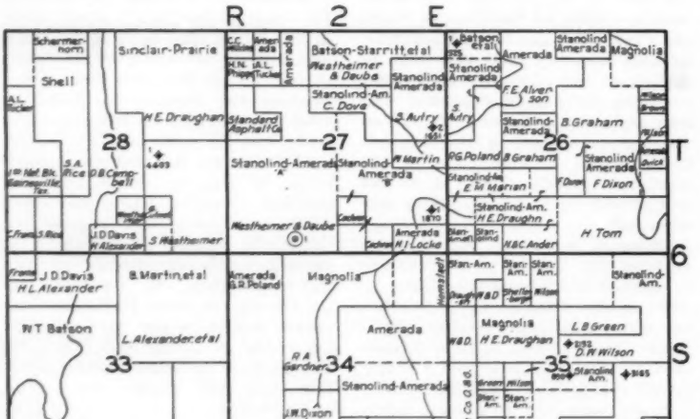
Friday, November 29, the Oklahoma Corporation Commission signed the order fixing the allowable of state fields for December at 480,100 bbls. daily, and following are the allowables by classification and fields. In the Oklahoma City field the area east of the fault line in the north end of the field is classified as Wilcox sand production, but given 17 per cent of potential compared to the older producers west of the fault and throughout the remainder of the field which get 22.7 per cent of the potential.

ALLOWABLES BY GROUPS AND FIELDS —DECEMBER

Class and field—	December allowable: Barrels per day	Percentage of potential
CLASS A:		
Okla. City—Wilcox...	107,543	*17 †22.7
Class B:		
Okla. City—Simpson.	18,535	91
Seminole proper et al	16,987	44
Seminole City	11,045	91
Earlsboro	15,284	91
Little River	13,136	91
Other Seminole pools:		
East Little River..	686	91
Mission	2,622	91
Searight	2,602	91
East Seminole	1,137	91
Maud	958	91
Asher-Wanette	792	91
Konawa	1,750	91
Sasakwa	723	91
Allen	6,114	91
Tatums	4,592	91
St. Louis	22,306	250
Sasakwa townsite..	1,519	25
Fish—Cromwell	4,185	100
Total Class B	125,114	
CLASS C:		
Crescent	4,640	7.2
Okla. City—Cleveland	2,267	22
Edmond	6,752	2.1
Fish—Wilcox	6,149	5.9
Fitts—Bromide	21,350	5
Geesman	714	55
Grayson	965	13.2
Keokuk Falls	1,564	7.2
Lucien	9,458	9
Polo	3,125	6.8
Total Class C	67,984	
CLASS D POOLS‡	12,369	
UNCLASSIFIED PRORATED POOLS:		
Gray	1,542	
Naval Reserve	7,765	
South Burbank	10,929	
West Chandler	4,461	
Total unclassified..	24,698	
Total unprorated areas	143,361	
Total state	480,100	

*East. †West. ‡Water 85.
‡Class D pools are allowed 100 bbls. daily per well, the December total allowable being divided as follows: Altus, 900; North Boley, 100; North Britton, 200; South Britton, 400; West Chandler, 500; Dill, 900; East Lucien—Misener, 100; East Lucien—Viola, 100; Fish—Viola, 200; Fitts—Hunton, 700; Fitts—Basal McLish or Wilcox, 0; Fox—Simpson, 100; Grisso, 300; South Keokuk, 1,100; Langston, 200; South Langston, 200; Lynch, 100; Marathon, 100; Oklahoma City—Simpson above Wilcox, 100; Olympic, 2,000; North Searight, 1,600; Seward, 200; Shawnee, 400; Stillwater, 200; East Sasakwa—Booch, 500; Tipton, 200; Wilzetta, 500; Wofford, 300; Keokuk—Hunton, 100; Jesse, 100; East Sasakwa—Wilcox, 100.

Oklahoma activity at this time is unusually robust, not from the standpoint of total operations but with development being concentrated on new fronts for the search of new crude supply. Especially is this true in the southern part of the state with the Centrahoma test in Coal County in the van. Other tests of major importance are the Sinclair Prairie Oil Co. No. 1 Stockton in section 26-6s-2w and the Amerada Petroleum Corp. and Stanolind Oil & Gas Co. No. 1-A Westheimer & Daube in section 27-6s-2e, both in Love County and threatening to open new pools. The past week saw Suggett & McElreath No. 1 Camp in the NE SE section 22-4n-1w, Garvin County wildcat, surge to the front bidding fair to open a new pool near the town of Pauls Valley. It was reported running some 300 feet higher on the top of the Simpson formation than the nearest test, Anderson-Kerr No. 1 Rodke, NW NE NW section 21-4n-1w, a dry hole. The Simpson dense was topped at 4,365 feet and the well was drilling at 4,470 feet on Saturday, nearing the Wilcox sand.



Acreage ownership around Stanolind Oil & Gas Co. and Amerada Petroleum Corp.'s test in section 27-6s-2e, Love County

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Pontotoc County

Continental Oil Co. No. 1 McCarty, SE SE NW section 12-1n-7e, recent discovery well of the Jesse area McLish sand production, is completed. Operators logged the McLish sand from 4,427 feet to 4,633 feet, total depth, and the last gauge taken of the well was 2,800 bbls. of oil in five and one-half hours with 6,200,000 feet of gas. Fifteen thousand barrels of oil will be taken from the well, after which it will be put on an allowable of 100 bbls. per day. The Continental company is losing no time in the development of its holdings in the area amounting to nearly 2,500 acres and the past week it has staked locations offsetting No. 1 McCarty. Materials were being moved in for No. 1 Statler, SW NE of section 12-1n-7e, the east offset; locations were staked for No. 1 Greenan, NW SE, southeast offset, and No. 1 McCurtain, NE SW, the south offset.

The Texas Co. is moving in materials for No. 1 Simpson in the SE NW SW of section 12-1-7, about one-half mile southwest from the discovery well.

The Fitts pool of Pontotoc County has 215 completed oil wells of which 147 are Bromide, 157 McLish, 6 Hunton, and 5 Viola lime wells. During the week Magnolia Petroleum Co. No. 1 Smith, SE SE NW section 28-2-7, was brought on production making it the most easterly producing well in the field. It established a potential of 3,622 bbls., production coming from the Bromide and McLish formations. Bromide lime was topped at 3,895 feet, first sand at 3,990 feet, second sand at 4,080 feet, McLish lime at 4,123 feet and McLish sands topped at 4,145 feet and 4,198 feet, with total depth at 4,370 feet.

The most interesting well drilling within the accepted limits of the Fitts pool is J. E. Crosbie, Inc., No. 1-A Burris, NE SE NW section 27-2n-7e, which topped the Viola lime at 3,770 feet. Although the Viola is lower than it was found in the nearest producing well to the west, it still is indicative of a potential Bromide sand producer, and if productive will extend the proven area 1 mile east.

The Fitts pool's one basal McLish sand well, E. H. Moore and associates No. 3 Atkins, SW NW NW section 32-2n-7e, has been plugged back to the upper McLish and acidized with 4,000 gallons, flowing 100 bbls. in one hour through tubing.

E. H. Moore and others No. 3 Craddock, NW SW SW section 29-2n-7, Fitts pool, is recompleted after deepening to the McLish formation from the Bromide. The McLish was logged from 4,120 feet to 4,400 feet, total depth, where it potentialed 2,443 bbls. of oil. Its potential prior to deepening was 3,028 bbls. from the Bromide. Same operators are preparing to deepen No. 6 Craddock, in the SE NW SW, with old total depth at 4,173 feet.

E. H. Moore and others No. 10 Wirick, SW SE SW section 29-2n-7e, has been deepened from the Bromide pay to the McLish logged from 4,060 feet to 4,372 feet, total depth. It was treated with 6,000 gallons of acid and on a four-hour gauge through tubing flowed 434 bbls. of oil. No. 12 Wirick, NE SW SE section 29-2n-7e, is completed for a potential of 3,044 bbls. of oil with 3,220,000 feet of gas. Bottom-hole pressure was 1,562 pounds. Bromide was recorded from 3,895 to 4,100 feet and McLish from 4,100 to 4,359 feet, total depth. Preparations were under way to deepen their No. 3 Wirick in the SE NE SW of the same section.

E. H. Moore and others No. 4 Woodruff, NW SE section 29-2n-7, had fair success with deepening from the Bromide and is recompleted in the McLish zone logged at 4,220 feet to 4,355 feet, total depth, for a potential of 3,360 bbls. of oil with 1,977,000 feet of gas. Its potential production in the Bromide just prior to deepening was 1,856 bbls.

Carter Oil Co. found it profitable by deepening its No. 14 Richards, SW SE SE section 30-2n-7, Fitts pool. A former Bromide producer at 4,017 feet, it is now completed in the McLish pay logged from 4,200 to 4,275 feet, total depth, establishing a potential of 3,207 bbls. of oil compared to its Bromide potential just prior to deepening of 1,008 bbls. No. 15 Richards was being rigged up with rotary equipment to drill deeper. It is located in the NW SW SE of section 30. Their No. 17 Richards, NW SE SE section 30, is being deepened to the McLish pay and the bit was at 4,173 feet in that horizon.

Carter Oil Co. No. 4 Julia Smith,

SE NE NE section 31-2n-7, Fitts pool, is recompleted in the McLish, same being recorded from 4,005 to 4,240 feet, total depth, where a potential of 2,553 bbls. of oil was established. Its potential prior to deepening was 2,057 bbls.

E. H. Moore and associates No. 1 Patrick, NW NE section 31-2n-7, Fitts pool, increased its potential materially upon being drilled to the McLish horizon. A potential of 3,043 bbls. of oil was established in that zone from 4,090 to 4,377 feet, total depth, as compared to its potential prior to deepening from the Bromide of 673 bbls. Rig is being built to deepen their No. 2 Patrick in the NE NW NE of section 31.

Skelly Oil Co. is digging cellar and pits for its No. 4 Park College in the NW SW NE section 28-2n-7, Fitts pool.

A Gilcrease Sand Producer

North of the Fitts pool proper in Pontotoc County, Clark & Cowden completed No. 1 Reynolds-Wagner, SE NW SW section 17-2n-7e, for 98 bbls. of oil in 36 hours, production coming from the Gilcrease sand at 1,675-94 feet, with total depth at 1,698 feet. It was given two 10-quart shots of nitroglycerin, after which it pumped 65 bbls. of oil the first 12 hours and 33 bbls. the next 24 hours.

St. Louis District

Two Hunton lime wells were completed in the St. Louis district, Pottawatomie County, Helmerich & Payne No. 1 Wilsie, SW SW SE section 7-7-4, was acidized in Hunton at 3,776-3,846 feet, total depth, with 1,500 gallons and flowed 404 bbls. of oil in 48 hours initially. E. W. Jones and others acidized Hunton lime at 3,712-3,962 feet with 3,000 gallons in No. 2 Brandenburg, located in the NE SE SW section 3-7-4, and pumped 130 bbls. of oil in 24 hours.

New operations in Pottawatomie County for the past week include Phillips Petroleum Co. No. 3 Booze, SE NE SE section 9-7-4, which is plugging back from total depth 3,990 feet; Peru Oil & Gas Co. No. 1 Vincent, NW SE NE section 13-7-4, which is deepening from total depth of 4,115 feet, and Robert Garrett and others No. 1 Merrill, NW NE NE section 31-7-4, which is a location.

There are seven other active operations in the St. Louis district, of which the most important is the wildcat test of Ross Oil Co. and others in the SE SE NE section 33-8-4. This well, No. 1 Sparkman, is rigging up standard tools at a total depth of 4,137 feet. The Hunton lime was topped at 3,850 feet and showings were encountered at 3,855-3,920 feet and 4,120-35 feet.

Hughes County

The Olympic pool in Hughes County was the center of activity for the past week in Hughes County. Blackwell Oil & Gas Co. completed its No. 1 Oliphant, SE SE SW section 1-9-8, in the Senora at 1,696-1,768 feet for 290 bbls. oil in 12 hours. The well flowed its initial production after being shot with 70 quarts. Shepard No. 2 Oliphant, in the NW NE SW section 12-9-8, flowed 195 bbls. oil in 24 hours after shooting the Senora 1,708-64 feet with 60 quarts. George Manahan and others No. 2 Dixon "C," located in the NW NW NE section 12-9-8, had Senora sand at 1,706 feet and flowed 290 bbls. oil in 24 hours after a 70-quart shot at 1,706-75 feet, total depth. The same operators have staked location for their No. 1 Oliphant, to be located in the SE NE SW section 1-9-8. Fitzpatrick is building rig for his No. 4 Dixon, to be located in the NE SW NE section 12-9-8.

George Manahan and others No. 2 Oliphant "B," NW NW SW section 12-9-8, set 7-inch casing on top of a sand topped at 1,755 feet. It was shot with 70 quarts at a total depth of 1,778 feet and flowed 400 bbls. of oil in 12 hours. The Potco Oil Co. No. 3 McCaslin, located in the NE NW NW section 12-9-8, is drilling ahead at 1,465 feet after showing oil in the Calvin sand from 1,431-60 feet.

There are two wildcat tests in the Olympic area, Smith & Boettcher No. 1 Beford, located in the SE NW NE section 15-9-8, has the derrick up. Deep Rock Oil Corp. and others No. 1 Robert, SW NW NW section 32-9-8, is plugging back to test the Calvin sand which was topped at 1,841 feet after getting water at a total depth of 4,590 feet, 21 feet in the Wilcox sand.

Seminole County

Carter Oil Co. and Magnolia Petroleum Co. No. 1 Tom Scott, C W half NE SW section 11-10n-6, South Keokuk pool in Seminole County, is a completion, flowing 210 bbls. of oil in 24 hours through tubing. It is a Misener sand producer having logged the pay from 4,149 to 4,165 feet with the total depth at 4,166 feet. Seven-inch casing was cemented at 4,149 feet and the 2½-inch tubing run to 4,145 feet.

In the same pool, Carter Oil Co. is moving in tools for No. 2 Dunaway, C W half NW SW section 11-10n-6, on the west side of the pool, and farther south it has staked location for its No. 1 Grisso, C E half SE NW section 23-10n-6.

Carter Oil Co. and associates were drilling at 1,315 feet at No. 2 Pipkin Community, C S half SE NW section 2-10n-6e, in the Keokuk pool of Seminole County.

Hunton Lime Campaign

The northeast edge of the old Seminole City pool is being subjected to a campaign for Hunton lime production and probably the most important strike toward this end was realized during the week with one well flowing 1,200 bbls. of oil in 19 hours from acidized Hunton. It is Darby Petroleum Co. No. 7 Carter, C NE SW section 24-9-6, which had the lime from 3,925-60 feet.

E. W. Jones and others No. 1 Ferguson, 1,195 feet north and 150 feet east of the SW cor. section 29-7n-8, Fish pool of Seminole County, has been deepened from the Wapanucka pay to the Wilcox sand logged from 4,135-36 feet, total depth, and completed for 965 bbls. of oil in six hours.

Seminole County got more than its share of the new operations started in the state during the past week, getting 13. In addition to those mentioned above there were the following: Continental Oil Co. No. 2 Milsey, SE SW SW section 11-7n-6e, rigging up to deepen to the second Wilcox sand from the present total depth of 4,221 feet; Sinclair Prairie Oil & Gas Co. No. 1 Mason, SW NE section 33-7n-6, a location; Reynolds Drilling Co. No. 1 Harjo, NW SE SE section 13-6n-7, rigging up rotary; Rudco Oil Co. No. 2 Fleet, SW NE SE section 13-6n-7, location; Rudco Oil Co. No. 3 Fleet, NE SE section 13-6n-7, rigging up rotary; Horman Oil Co. No. 1-A Davis, NW SE SW section 7-6n-8, rig on ground; W. D. Grisso Royalty Corp. No. 2 Barnhart, SE NW NW section 8-6n-8, location; Phillips Petroleum Co. No. 2 Emma, 1,065 feet south and 1,204 feet east of the NW cor. section 8-6n-8, rigging up rotary; Sulmac Oil Co. No. 1 Hart, SE NW NW section 27-5n-6, spudding, and Sinclair Prairie Oil & Gas Co. No. 1 L. Harjo, SW NW SE section 12-5n-7e, building rig to deepen from old total depth of 2,985 feet.

Southwestern Oklahoma

Texas Co. has farmed out a part of its 5,200-acre block of leases in Beckham County centering around Township 8n, Range 23w, to the Benonine Oil Co. of Amarillo, Tex., and location was made for No. 1 Smith in the SW cor. section 17-8n-23w, for a 3,500-foot standard tool test. Material is being moved to the location.

In the Altus pool of Jackson County, Gypsy Oil Co. completed its No. 6 Kelly, SE NW NE section 10-1n-20w, getting the granite wash formation from 1,457-95 feet, total depth, from which it put 96 bbls. of oil in the tanks in 24 hours flowing through 2-inch tubing.

Interest in the Altus area was revived when the Gypsy Oil Co. found production in its No. 1 Boucher located in the NW SW SW section 32-1n-19w, which had an initial production of 560 bbls. and later settling to around 250 bbls. daily. No. 1 Boucher is productive in the Cisco lime at 2,594-2,607 feet, but the same operator No. 1 Southerland, NE SE SE section 31-1n-19w, a west offset, has not yet responded favorably in the same horizon, making only 21 bbls. in 24 hours. It will be deepened from its present total depth of 2,645 feet.

South of the Tipton pool in Jackson County, R. O. Ray of Frederick, Okla., made a location for a 3,000-foot test, No. 1 Tucker, SW NW SW section 17-1s-19w, on a 500-acre block of leases.

H. N. Haustic is rigging up rotary for a wildcat test in the C NW NE section 27-4s-13w, Cotton County. It will be known as No. 1-A Weaver.

B. B. Bacon and others completed No. 4 Fahy, 760 feet north and 570 feet east of the SW cor. section 21-2n-10w, Lawton district, Comanche County. It pumped 8 bbls. of oil from the granite wash logged from 785 feet to 880 feet with total depth at 882 feet.

In the North Duncan district, Hylo Oil Co. is drilling at 1,300 feet in No. 4 Malicky, SW NW NE section 31-1n-8w.

In Garvin County, W. B. Stevens and Clyde O'Dell have staked a location in the Robberson pool for No. 3 Newberry, in the NW SE SW section 14-1n-3w.

Oklahoma Natural Gas Co. has deepened its No. 1 Edmunson, SE SW NW section 23-5-8w, Chickasha gas field in Grady County, from the old total depth of 1,390 feet, and finding sands at 1,630-38 feet and 1,940-48 feet dry, the test is abandoned at 2,006 feet, total depth. In the same field the Gas Production Co. No. 1 Dukl, NE NW SW section 35-5n-8w, has been deepened from 1,479 feet, old total depth, to a gas sand found from 1,724-53 feet, total depth, where it produced an estimated 1,500,000 feet of gas on a drill pipe test.

Magnolia Petroleum Co. was rigging up to deepen its No. 1 Woods, NE SE SW NE section 17-3n-5w, in the Knox pool, Grady County. The old total depth is 2,025 feet.

Jefferson County suffered the loss of one wildcat test but gained two additional tests during the past week. M. H. Barrett No. 1 Mose, located approximately in the C N half NW SW section 9-6s-7w, is dry and abandoned at 917 feet in sandy shale. An oil showing was encountered in this test around 711 feet. Jefferson County's new operations were: George Pace No. 1 I. Gardner, SW cor. section 23-5s-5w, with 10-inch casing set at 66 feet, and L. C. Heydrick No. 1 O. W. Seay, SE NW NW section 31-6s-5w, a location. Both of these are wildcat tests.

J. H. Hudson and others propose a test on their 180-acre Cathey lease in Carter County comprising the N half N half and N half SE¼ NE¼ section 6-5s-1w, and a location has been staked in the SE NE NE. It is located at the extreme south end of the old Hewitt Pool being cut off from production by a few dry holes and exhausted wells.

Marshall and Bryan Counties

In Marshall County, Levelle Coal Co. No. 13 Eppler, a twin well located 150 feet south and 165 feet west of the NE cor. section 36-7s-5e, had sand at 520-32 feet, total depth, which was good for 20 bbls. of oil and 4 bbls. of water the first 24 hours on the pump.

B. C. Lemond was drilling at 450 feet in his No. 1 Johnson, 1,170 feet south and 1,320 feet east of the NW cor. section 14-5s-5, in the Madill pool of Marshall County.

Levelle Coal Co. has location staked for No. 1 Brent, 150 feet south and 1,170 feet east of the C Section 1-8s-5, Isom Springs pool.

Selby Oil & Gas Co. No. 2 Gilbert, SE SW NE SW section 25-8s-7e, found sandy Arbuckle formation from 909-13 feet, total depth, which carried a hole full of water and the test is dry and abandoned. This wildcat is located in Bryan County about 3 miles north of the Texas state line.

Oklahoma County

In the new drilling zone in the Oklahoma City pool, Westgate Oil Co. completed No. 11 Carey, 172 feet south and 1,137 feet east of C section 34-12-3w, in Wilcox sand 6,335-6,506 feet. The well potentialed 3,452 bbls. of oil in 24 hours on gas lift.

Five wells are drilling, or in process of completion, below 5,000 feet in the vicinity of British-American Oil Co. No. 1 Green, 270 feet north and 535 feet east of the SW cor. section 23-12-3w, which is milling at 6,261 feet. This is a north extension to the Oklahoma City pool.

In the Britton area, Oklahoma County, Sinclair Prairie Oil Co. and Slick-Urschel No. 1 Kratky, SE SE NE section 19-13-3w, was acidized in the Simpson formation with 2,000 gallons after plugging back to 6,730 feet. On a test the well swabbed 200 bbls. of oil and 125 bbls. of water in 24 hours. Slick-Urschel and others No. 1 McGrew, located in the SW cor. section 20-13-3w, had the top of the Simpson formation at 6,550 feet and flowed 1,565 bbls. of oil in 15 hours with 6,000,000 feet of gas from a total depth of 6,690 feet. Operators will acidize. Same operator No. 1 Church, NE cor. section 30-13-3w, cemented 9⅝-inch casing at 6,565 feet and are waiting on cement to set at a total depth of 6,656 feet, 131 feet in the Simpson formation.

Rapp Oil & Gas Co. and others No. 1 Price "A," located in the SE SW

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THE OIL AND GAS JOURNAL

Tulsa, Oklahoma

NW section 30-14-3w, Edmond pool, is drilling at 6,598 feet with a show of oil after topping the Simpson Dolomite at 6,511 feet. In the same pool, Pure Oil Co. is drilling at 5,613 feet in its No. 1 Berquist, SW SW SE section 30-14-3w; and same operator No. 3 Malm, located in NE NW SW section 30-14-3w, is drilling at 6,265 feet after topping the Oswego at 6,085 feet.

Estimated Production

Estimated daily average production of Oklahoma for the week ending November 30 and for the preceding week is as follows:

	Barrels	
	Nov. 30	Nov. 23
Allen	6,550	6,850
Asher-West Asher	1,000	950
Burbank	7,750	7,500
South Burbank	11,250	11,400
Balance Osage	23,760	23,500
Blackwell	4,850	4,850
Bristow-Slick	8,650	8,600
Chandler	4,200	4,200
Crescent	5,100	5,150
Cromwell	3,900	3,900
Cushing-Shamrock	12,350	12,000
Duncan district	4,200	4,200
Edmond	6,750	7,825
Fish	12,125	11,875
Fitts	34,850	37,300
Gray	1,650	1,675
Graham	4,000	4,025
Healdton	9,250	9,200
Hewitt	4,475	4,450
Holdenville	1,275	1,275
Keokuk	3,875	3,400
Konawa	1,775	1,775
Lucien	10,200	9,975
Marshall-Lovell	875	875
Oklahoma City	126,100	137,125
Papoose	1,125	1,100
Polo	3,300	3,500
Sasakwa and townsite	3,375	3,000
Sholem-Alechem	3,775	3,750
Seminole field:		
Bowlegs	9,350	10,150
Carr City	4,725	5,975
Earlsboro	7,825	8,225
South Earlsboro	1,000	950
East Earlsboro	10,300	10,250
Little River	14,250	14,825
East Little River	1,000	800
Maud	1,000	1,050
Mission	2,675	2,800
Seminole	11,500	12,000
East Seminole	1,325	1,375
Searight	5,150	3,825
Total Seminole	70,100	72,225
St. Louis-Pearson	21,900	21,750
Tatums	4,250	4,200
Tonkawa-Garber-Thomas	5,850	5,825
Wewoka	3,550	3,500
Yale-Jennings	4,150	4,100
Other pools	52,590	52,550
Total Oklahoma	484,725	499,375

Eastern Oklahoma

M. S. Mussellem deepened his No. 1-A Lewis, SW SE NE of section 17-14-17, Beland pool in Muskogee County, to the Viola at 1,883-88 feet and it initialled 50 bbls. of 44 gravity oil the first 24 hours. The well was originally completed for 20 bbls. of 38 gravity oil from the Muskogee at 1,290-1,335 feet during the early part of 1932. This is an old area that has been revived with the recent discovery of Viola lime production. A number of the wells have been deepened with good results.

Two gas wells were completed in Okmulgee County during the past week for an aggregate of 3,000,000 feet of gas. In the Schulter pool, Fred Cusack No. 1-A Burgess, N half NE SE of section 19-12-13, gauged 1,000,000 feet of gas from the Red Fork topped at 1,952 feet. The well was drilled to 2,460 feet where a hole full of water was encountered. It was then plugged back to 2,024 feet in the Red Fork. Art Thompson No. 1 Douglas, located in the NE SE NE of section 22-12-13, on the west edge of the Conlton pool, gauged 2,000,000 feet of gas from sand encountered from 1,573-79 feet.

Cahill and Howard completed No. 3 Carnard, in the Coweta pool of Wagoner County, for 20 bbls. of oil in 24 hours from the Dutcher sand at 1,001-11 feet, total depth 1,017 feet. The well is 1,200 feet from the south line and 1,000 feet from the west line of the NW quarter of section 8-17-16.

Fred B. Kroger and others have spudded No. 2 Vernon in SW SW SW section 16-17-15, and F. B. Dillard and others were drilling at 1,500 feet in section 17-17-15, both in Wagoner County.

Northwestern Oklahoma Activity

In the Vernon pool of Kay County, Harris and Haun abandoned No. 1 Swenson, C NE quarter of section 32-29-1, at 3,411 feet in what was probably the Wilcox sand, topped at 3,342 feet. The test had a small show of oil at 2,705 feet in the Layton, and a show of oil at 3,326 feet where it topped the Chat.

Four wildcat operations in Grant County are progressing as follows: D. F. McMahon and A. D. Morton No. 1 Warren, SE SE NW section 19-29-4, had a hole full of water in the top of a sand encountered at 2,360 feet. They are drilling at 2,425 feet in sand. L. H. Wentz and others No. 1 Wirtz, located in the SE SE NW section 22-28-4w, is drilling at 5,225 feet in lime. Shell Petroleum Corp. No. 1 Foster, 440 feet south and 440 feet east of the center section 30-27-8w, drilled plug after setting 8-inch casing at 5,943 feet, but had no show of oil. The well is drilling ahead in brown Dolomite at 5,968 feet. Southern Oil Co. and others No. 1 Allen, SW SW SE section 36-26-4w, topped the Layton at 4,100 feet with nothing showing. They are drilling ahead at 4,330 feet.

Herndon Drilling Co. and others No. 1 Whitaker, located in the SE corner of section 27-24-3w, in Garfield County, topped the Dolomite at 4,903 feet and recovered approximately 4 feet of Dolomite showing oil in a core taken from 4,905-20 feet. Seven-inch casing has been cemented at 4,880 feet and the Wilcox will be tested with rotary tools.

In the Brown pool, southeastern Garfield County, Sunray Oil Co. No. 1 Shanks, SW SW NE section 10-20-4w, had sand showing oil in cores taken from 5,952-58 feet after topping the second Wilcox at 5,950 feet. They are running pipe and will test. The old wells were completed in the latter part of 1929 and the early part of 1930 for a total of approximately 1,400 bbls. from the Wilcox sand.

The South Lucien pool of Noble County had one new completion in Sinclair Prairie Oil Co. No. 2 Frederick, C S half SE NE section 33-20-2w, which had a potential of 489 bbls. of oil in 24 hours from the first Wilcox topped at 5,038 feet. The well was bottomed at 5,117 feet and plugged back to 5,074 feet.

Southwestern Logan County's important wildcat test of the Texas Co. and others No. 1 Wood, SW SW NE section 34-15-4w, was dry and abandoned. They recovered 4 inches of hard, white, salty sand in a core taken from 7,105-06½ feet. Total depth in second Wilcox sand was topped at 7,096 feet.

Texas Co. No. 1 Vanderpool, NW SW SE section 11-16-3, wildcat test in northern Lincoln County, had the top of the Cleveland sand at 3,320 feet, and was drilling ahead at 3,490 feet.

Okfuskee County

In northwestern Okfuskee County, Stanolind Oil & Gas Co. and Amerada Petroleum Corp. have abandoned the location of their No. 1-A Wash-

ington, SE NE NE section 12-13-7, wildcat on seismographed acreage.

One gas well and one dry hole was completed in the Deaner pool during the past week. Prince and Anderson No. 4 Likowski, located in the NE SW SW of section 23-11-11, was completed for 750,000 feet of gas from the Booch sand encountered from 2,055-79 feet. A gas well completed for approximately 4,000,000 feet of gas in September, 1934, was deepened from 2,265 feet to 2,487 feet and abandoned. This well is Moffitt No. 1 Robinson, 200 feet from the south line and 1,120 feet from the west line of the SE quarter of section 26-11-11.

Osage County

The Tidal Osage pool was extended one-half mile south this week by the completion of Coralena Oil Co. No. 1-A, NW NE SW section 22-24-8, which swabbed and flowed 120 bbls. of oil from sand and chat at 2,360-2,425 feet after a 120-quart shot. The hole was bottomed at 2,459 feet in Mississippi lime.

F. A. Haver completed No. 9, 1,650 feet from the south line and 810 feet from the east line of SW quarter section 16-23-11, in the West Avant pool, Osage County, for 8 bbls. of oil from sand encountered at 1,660 feet. The well was plugged back to 1,685 feet from the total depth of 1,787 feet.

Indian Territory Illuminating Oil Co. No. 16, SE cor. of section 25-25-9, Pershing pool, was deepened to 2,047 feet from 1,992 feet and then plugged back to 2,043 feet with little success. On a test the well pumped 6 bbls. of oil and considerable water from the Bartlesville sand topped at 1,988 feet.

Two gas wells were completed in Osage County during the week as follows: Bird Creek Pool, Barnsdall Oil Co. No. 6, NW NW SE section 10-21-12, gauged 10,000,000 feet of gas from Wilcox topped at 1,818 feet. The well was drilled to 1,930 feet and plugged back to 1,830 feet; 3,500,000 feet of gas was gauged in Lindy Oil Co. No. 3-A, NW NE SW section 29-20-12, Country Club pool, from Burgess at 1,650-65 feet, total depth.

New work started in Osage County includes Kewanee Oil & Gas Co. No. 4 Renald, NE SW SW section 26-26-6, location; Carter Oil Co. and others No. 4 Cook, 980 feet from the south line and 25 feet from the east line, NE quarter of section 9-25-6, location; and W. F. Worley & Co. No. 6, NW SE SW section 16-25-6, location. These locations are all in the South Burbank pool.

Two locations were staked in the Dalton pool by Coralena Oil Co., No. 4 being located 300 feet from the north line and 1,080 feet from the east line of the SW quarter of section 6-24-8, and No. 5 being staked 1,087 feet from the south line and 1,065 feet from the west line of the SE quarter of the same section.

Texas Co. is moving in a machine for its No. 2, SW SW NW section 13-24-8. W. C. Schoenfeld and others have staked a location for their No. 3, SW SE NW section 22-24-8. Charles Petroleum Corp. No. 3, C S half section 14-22-8, location announced.

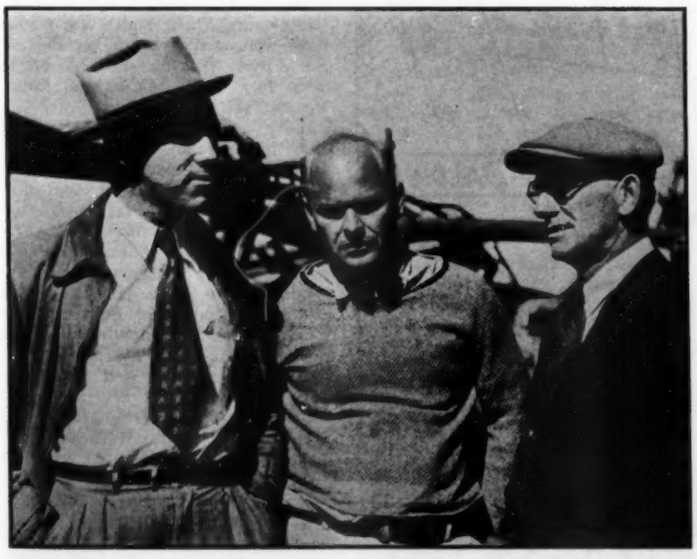
Drilling Contractors

(Continued from Page 59)

Trinity Drillers, Inc., of San Antonio, are operating rigs in Webb, Victoria, Live Oak and Duval Counties, Southwest Texas. In Webb County they are drilling a wildcat for J. E. Neal, and will move on locations in the Lopez field for Superior Oil Co. and Montour Production Co. In Live Oak County, they are moving on the Slick-Urschel No. 1 Watson and Shipp in the new Fort Merrill field.

George W. McMurray of San Antonio recently completed No. 5 Ray for Simms Oil Co. in the Ray field, Bee County, and is moving to an offset location for the same company.

R. M. S. Owen, B.Sc., member of the Institute of Petroleum Technologists (London) and the Alberta Society of Petroleum Geologists, has resigned the position of assistant petroleum engineer in the Petroleum and Natural Gas Division of the Alberta Lands and Mines Department at Edmonton. Mr. Owen has been with the department since it was organized in 1931, having previously been engaged in geological exploration in Venezuela. He will leave shortly for England.



C. R. Reith, Joe Ballenfont, petroleum engineers, and Fred Winger, production superintendent, with The California Co. at Midland, Tex.

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Southwest Texas District

By GEORGE WEBER

NEW WELLS IN PROVEN AREA FEATURE OF WEEK'S RESULTS

SAN ANTONIO, Tex., Dec. 2.—Important developments in Southwest Texas during the past week returned to the proven areas after recent wildcatting activities had held the spotlight through a period of outstanding discoveries. The Loma Novia and Seven Sisters fields of Duval County, Lopez and O'Hern fields of Webb County, and the new Corpus Christi or Saxet Heights field in Nueces County, all received important new production. In addition, minor wildcat discoveries in Goliad, Bee, Jim Wells and Starr Counties were undergoing attempted development.

Although leasing continued active in the area surrounding the Santa Clara Oil Co. (Atkins and O'Neil) No. 1 Driscoll, no new locations have yet been announced. Rapid development of the new field, named the Clara Driscoll field, is indicated in the widespread ownership of leases in the vicinity. Included among those holding large acreage blocks are: Santa Clara Oil Co., Buchanan and Blanco Oil Co., Texas Co., Sun Oil Co., Houston Oil Co., Magnolia Petroleum Co., Mid-Continent Petroleum Corp., Marathon Oil Co., and W. L. Hines, drilling contractor who completed the discovery well. The discovery greatly enhanced the interest in the Masterson No. 1 Eschberger drilling below 200 feet about 3 miles northeast of the Driscoll well.

Saxet Heights' Second Well

Attention of operators was returned to the Corpus Christi or Saxet Heights field of eastern Nueces County late in the week, by the completion of the second oil well in that area. J. K. Culton No. 1 Russell Savage made 250 bbls. per day of fluid containing approximately 50 per cent oil while still cleaning. The well was drilled into the sand 4 feet deeper than the No. 1 Baldwin, and 3 more feet of the gas sand was cased off. On a drill stem test, the Savage well flowed over the crown block in 18 minutes with one-quarter inch bottom and three-eighths inch top chokes.

As soon as plugs were drilled on the Savage well, the crew began moving on the third location, No. 1 Margaret Whelan, a northwest offset of the Savage well. Richardson Oil Co. has also made location for the No. 1 Kruz, west offset to the Savage well. Several other tests are expected to get under way within a short time.

The Saxet and Baldwin fields in the same county each received a new producer, and the former the location for a new test.

Completions in Loma Novia

Six completions were recorded for the Loma Novia field of Duval County during the week. Ten new locations were staked. Rosan Oil Co. brought in the No. 1 Hubbard in the east half of Survey 71 for a 60-bbl. per hour producer through open tubing. The sand in this eastern outpost well was cored at 2,770-78 feet. The remaining completions, all inside wells, included: Bridwell Oil Co. No. 1 Pennia, section 78, making 30 bbls. per hour on a one-half inch choke; Frank Gravis' No. 2 Byland in Survey 78, completed for 35 bbls. per hour through open tubing; Hamill, Smith & Ogden No. 3 Hahl in Survey 78, making 26 bbls. per hour on a one-half inch choke; same company No. 28 Hubbard in Survey 77, producing 240 bbls. per day, and Shell Petroleum Corp. No. 15 Hubbard also in Survey 77, which swabbed 10 bbls. per hour from total depth of 2,788 feet. Most new locations were offsets to these new producers.

Seven Sisters Field

This week marked the entry of two new companies in the Seven Sisters field of northern Duval County. In Survey 383, the Navarro Oil Co. has made location for the No. 1 J. F. Welder, offsetting Santa Clara Oil Co.'s acreage. The Diamond Half Oil Co. will move in on the No. 1 Serna location in the NW cor. N half NE quarter of Survey 384. This test will be a south offset to Henderson and Harvey No. 1 Chernosky, discovery well of the field. This brings the total number of companies active in the field to 12, 8 of which have production.

At the latest report, the T. P. Morgan No. 1 Welder, a south outpost test, was still shut down at 2,851 feet awaiting orders. The test got no show in the sands producing in the Seven Sisters field. To the east of the field, however, Westheimer and Daube No. 1 Z. Campos made a good test at 2,202-28 feet, showing 1,900 feet of pipe line oil in 15 minutes with three-eighths inch chokes top and bottom. The sand at this level is not the Government Wells sand, producing all but one of the wells in the field, but the Chernosky sand, in which the discovery well of the field was completed. Casing has been set on the Westheimer and Daube well and plugs will be drilled early in the week. The Henderson & Harvey No. 1 Wood-Welder, semiwildcat to the west of the field, is drilling below 1,400 feet.

The only completion for the week in the Seven Sisters field was Buchanan and Blanco Oil Co. No. 3 Wood-Welder, making 30 bbls. per hour on a small choke.

Gas Wells in Duval

Two gas wells were completed in Duval County during the week. California Co. No. 1 Kohler in the Kohler field was brought in making 25,000,000 feet of gas daily, at a total depth of 2,575 feet. The Government Wells field yielded a small gasser and one oil well. Two tests were abandoned in the county: Kelly No. 1 Turney in the old Piedras Pintas field, and T.G.&M. Drilling Co. No. 2 M. Davison, wildcat, in Survey 90.

Webb County

In Webb County, Lopez field, held the greatest interest from the standpoint of new locations and completions. Seven new tests were announced, most of them to be drilled in the new south extension of the field. Completions totaled five including the following: Mills Bennett Production Co. No. 4 Montemayor in Survey 114, making 456 bbls. per day; same company No. 2 Montemayor on the same lease, brought in for 16.4 bbls. per hour; G. G. Mortimer No. 3 M. Lopez completed for 12 bbls. per hour in Survey 73; Mortimer No. 1-A J. Lopez in Survey 111, no gauge and Nixon and Talbot (Sierra Oil & Royalty Co.) No. 1 Billings completed for 15 bbls. per hour. The last named well is located midway between the field proper and south extension to the west.

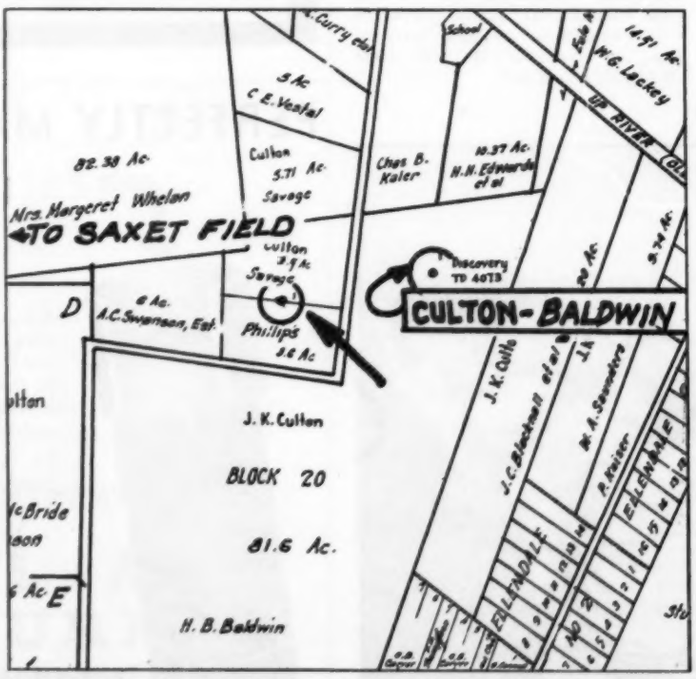
O'Hern field was extended nearly a half mile to the southwest by the completion of the Texla Oil Co. No. 1-A Brennan Benavides (Nash & Brennan-Benavides) for 15 bbls. per hour at a total depth of 2,846 feet. Texla has made two additional locations in the field and Magnolia Petroleum Co. has made one. Magnolia No. 1 Volpe Brothers, a wildcat in Survey 385, was abandoned at 4,881 feet. Another wildcat, J. E. Neal No. 1 Laurel Brothers, located 4½ miles southeast of Mirando City, is drilling below 2,130 feet.

Southwestern Wildcats

Wildcats at four widely separated points in Southwest Texas were attempting development of shows made earlier in the week or last week. In Bee County, D. C. Smith No. 1 Robinson was still swabbing at the latest report with no show of oil at 3,059 feet. The test, located southwest of the Caesar field, previously made a small show of oil on a drill stem test at that depth. The Keystone Royalties Co. No. 2 Woods in Goliad County cored the top of a gas sand at 5,975 feet last week. Casing was set and perforated at 5,977-83 feet. The well showed little gas, no oil and no pressure. They are rigging up to swab. In Jim Wells County, Putnam and Stewart have set casing and are drilling plugs on the No. 1 Hawkins, 2½ miles north of San Diego. The well tested gas on a drill stem test last week. In Starr County, a new shallow field was opened by Ash and Tacketts No. 1 Margo. The well cored sand at 376-78 feet and is standing with oil to within 40 feet of the surface.

In the lower Rio Grande Valley, wildcats continued to claim the attention of operators. S. J. Sloan No. 1 Brock and Sbowers, wildcat 12

(Continued on Page 78)



New Corpus Christi field opened by J. K. Culton's No. 1 Baldwin, showing second test, Culton's No. 1 Savage, which is showing oil

(Map by Porter Regenold, Corpus Christi, Tex.)

Michigan Field Report

COMPLETIONS EXCEEDED BY NEW PERMITS IN BUSY WEEK

By
PAUL A. ELLIOTT

MUSKEGON, Mich., Dec. 2.—New permits exceeded new completions in Michigan last week as both raced toward an all-time record already virtually assured for 1935. Twenty-four new locations were placed under permit while 20 new completions were recorded during about the same period.

It was a week of real thanksgiving for the drillers of nine new oil producers and six natural gas wells which had an aggregate potential or open flow capacity of more than 9,000 bbls. of oil and more than 46,000,000 feet daily of gas. Five completions were disappointing dry holes.

Most of the successful producers were in proved fields in Gratiot, Isabella, Mecosta, Montcalm, Ogemaw and Saginaw Counties, with two dusters in Mecosta and Montcalm, one in Allegan and two in Alcona County.

As in the case of the completions, eight counties figured in the 24 new locations, the bulk of them in proved fields in Montcalm, Midland, Ogemaw and Saginaw Counties with new wildcat projects scheduled for Gratiot, Ionia, Lenawee and St. Clair Counties.

Porter Regains Lead

The Porter-Yost pool of Midland County regained the leadership among 11 oil producing areas, a position which had been occupied for several weeks by the Crystal field of Montcalm County. Porter-Yost averaged 21,050 bbls. compared with a daily output of 20,386 bbls. from Crystal wells.

The original Mount Pleasant field of Chippewa and Greendale Townships on the line between Isabella and Midland Counties also outstripped Ogemaw County fields for third place making 3,019 bbls. daily compared with Ogemaw's 2,597 bbls. a day. The Vernon-Leaton pool of Isabella County were next with 2,015 bbls. a day followed by six minor producing areas, including Home Township, Montcalm County; Beaverton-Gladwin, Muskegon-Oceana, Birch Run and Saginaw Township fields, Saginaw County, and the new Hemlock well in Richland Township, Saginaw County, making from 76 to 310 bbls. a day.

Michigan's increasingly important place among 18 oil producing states of the nation again was recognized by the U. S. Bureau of Mines which granted an advance of 1,400 bbls. a day from 40,400 to 41,800 bbls. as the estimated crude requirements for December over November.

Drilling permits issued by the state conservation department during 1935 reached a total of 646 from January 1 to November 26 compared with 444 during 1934 and a previous high record of 578 established during 1929 when the Muskegon field drilling was at its height.

Montcalm County led in oil completions last week with five new wells, three in Crystal Township and one each in Ferris and Home Townships for an aggregate pressure potential of 8,861 bbls. a day. Ogemaw County added three smaller wells with initials totaling 370 bbls. and Saginaw County a single 12-bbl. Berea well in Birch Run Township field. The Ogemaw wells were equally distributed, one in each of the three oil producing townships of Horton, Mills and West Branch.

Four of the six gassers added 35,280,000 feet to the mounting potential open flow capacity of the Millbrook-Hinton Belvidere Townships field of Mecosta and Montcalm Counties now credited with an aggregate of 375,000,000 feet. The two larger wells were completed in Belvidere and Hinton Townships with two smaller producers in Millbrook.

One of the most important gas finds was a 10,600,000-foot well in New Haven Township, Gratiot County, east of the Crystal oil field. A small well also was finished in Denver Township, Isabella County, All of the gassers were completed in the shallow Michigan Stray sands, while the new oil wells produced from the Berea, Traverse and Dundee, all of the chief oil pay sands of the state.

Montcalm County

Both the biggest oil and gas wells of the week were brought in on Montcalm County leases, the former in Crystal Township and the latter in Belvidere Township.

The big oil well was the Pure Oil Co. No. 4 Preston, NW SE NE section 3-10n-5w, Crystal Township, which came in Wednesday with an initial flow of 400 bbls. an hour as one of the larger completions in the Crystal pool. It was estimated good for at least 8,000 bbls. a day from the Dundee. It is on the same lease with three other large producers.

McClanahan Oil Co. No. 1 Frost heirs, NE SE SW section 3-10n-5w, flowed 90 bbls. during the first hour after acid treatment in the Dundee and was estimated good for 500 bbls. a day pinched in to 20 bbls. an hour with 250 pounds back pressure. Dundee lime was topped at 3,181 feet and drilling completed at 3,204 feet, or 23 feet in.

The Frost lease originally was owned by the Gordon Oil Co., but was sold to the McClanahan Oil Co. after the Gordon drilled one small well to the Dundee. The new producer is reported higher on structure than wells both to the north and south.

The Crystal Syndicate, Inc. brought in a 200-bbl. initial producer as its No. 1 Hattie Drake, SW NW NE, in the same section, topping the Dundee at 3,193 feet and completing at 3,197 feet where it produced 156 bbls. during the first 14 hours.

Another "duster" was completed within the Crystal village limits further indicating the pool's limits in this westerly direction from production. E. H. Linabury and H. B. Barker No. 1 Frost, SE SE SE section 8, Crystal Township, was the dry hole completed at 3,241 feet after topping the Dundee low at 3,206 feet and striking bottom water from 3,235 to 3,239 feet.

Daily Crude Oil Co. struck bottom water at 3,197 feet in its No. 5 W. Robbins, SE NW NE section 3, but was attempting to plug back to an oil show at 3,187 feet. Dundee was topped 3,178 feet.

Two other Crystal Township tests were being completed, the Gordon Oil Co. No. 4 William E. Strait, NE SE NW section 3, cased and cemented at 3,170 feet and Strange & Fortney No. 1 Elva M. Rockelman, NW SW SE section 11, cased at 3,075 feet.

Four other Crystal tests were nearing the Dundee as follows: Rex Oil & Gas Co. No. 1 R. and C. Ball, NE SE SE section 2; Rowmor Corp. No. 3 Frank Clark, NE NW NW, same section; Stork Oil Co. No. 5 G. Dickenson, NW NW SE section 3, and J. W. Leonard, Jr., trustee No. 2 John Tow, NE NE SE, also section 3.

Ferris Township

Two completions, one a small oil well and the other a dry hole, were recorded in the Ferris Township section of the Crystal pool.

The lone oil well, T. F. Caldwell, Inc. No. 5 Jesse Flint,, SE SW SW section 35-11n-5w, which swabbed 43 bbls. at 3,191 feet, but will be treated with acid. Dundee was topped at 3,185 feet.

Swanson Oil Co. No. 1 LaForest E. Davenport, NE NE NE section 28, Ferris Township, was the dry hole which was drilled to 3,278 feet without production.

Three other Ferris Township tests were nearing completion in the Dundee, including George Hanners No. 1 C. H. King, SW NW NE section 26; T. F. Caldwell, Inc. No. 6 Jesse Flint, NE SW SW section 35, and James H. Hibbard No. 1 Bessie Nickerson Sartor, SW SE NE section 22, north and west of the King. The Caldwell-Flint had a show of oil and gas in the Traverse at 2,760 feet, while the Sartor flowed when it struck Traverse pay at 2,878 feet.

Home Township

Daily Crude Oil Co. No. 1 William Jensen, NE SE NW section 10-12n-6w, Home Township, Montcalm County, was completed for an initial production of 118 bbls. a day, 17 feet in the Traverse at 3,054 feet. The limestone was first encountered at 3,037 feet. The pay was to be acid treated.

The Jensen is located in Daily's small Traverse pool in Home Township where three other tests were drilling. The pool produces an unusually high grade of sweet crude.

Bushnell Township

Jetter Oil Co. rerun casing at 3,099 feet in its No. 1 C. N. Long, SW NW SE section 1-9n-6w, a Bushnell Township, Montcalm County wildcat which struck a show of gas at this depth and probably will be drilled in this week.

Gas Wells

The largest gas well completed during the past week was D. F. Jones No. 1 Bolger, C SW SE section 10-12n-7w, Belvidere Township, Montcalm County. It was rated at 20,000,000 feet a day open flow capacity in the Michigan Stray sands.

Three other gassers were completed in the same field for an aggregate open flow of 15,280,000 feet a day from the same shallow pay sands but in Hinton and Millbrook Townships, Mecosta County.

The largest of these three was Charles Bell No. 2 Orin Dell Satterlee, C NW NE section 25-13n-8w, Hinton Township, brought in with an open flow of 13,500,000 feet a day. The No. 1 Satterlee was brought in for 9,900,000 feet several weeks ago.

Two smaller wells were completed in Millbrook Township. Frank McCollister No. 1-A Byron Yeomans, C SW SW section 35-13n-7w, made about 1,000,000 feet daily open flow at 1,278 feet, or about 30 feet in the Michigan Stray sand.

Goll, Graves & Mechling No. 1 V. V. Sheets, NW SW NE section 35, gauged 780,000 feet a day 12 feet in the Michigan sands at 1,334 feet.

Mecosta Wildcats

Sherrit Oil & Gas Co. No. 1 Milo Gingrich, C SE SW section 12-15n-7w, a Sheridan Township, Montcalm County wildcat was abandoned as a dry hole gas test.

Taggart Brothers No. 5 Robert Fish, C NW NW section 9-14n-9w, an unsuccessful gas test in the Austin Township, Mecosta County field, was drilling at more than 2,250 feet on the way to the Dundee for oil. It is near the central south limit of the field.

Gratiot County

Open flow capacity of the Crystal Oil & Gas Co. No. 1-B Shaver, C NW NE section 4-10n-4w, New Haven Township, Gratiot County, east of the Crystal field, was increased to 10,600,000 feet a day by drilling into the second pay after previously reporting an initial of about 3,000,000 feet at 941 feet. Total depth is 960 feet.

First well on the Shaver lease was drilled to the Dundee for oil but was unsuccessful after the drill

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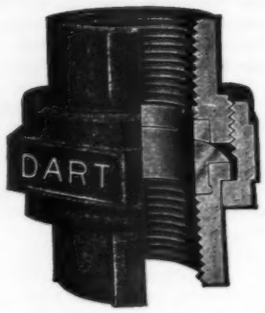

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passed through a heavy flow of gas in the Michigan Stray sands.

Isabella County

A small Michigan Stray gasser was completed by the Nollem Oil & Gas Corp. and the Wittmer Co. in its No. 2 John M. Watson, SE SW NE section 19-15n-3w, Denver Township, Isabella County. The formation was topped at 1,234 feet and the pay at 1,248 feet, the well completing 2 feet in at 1,250 feet.

Morris-Van Keuren Oil & Gas Co. was completing its No. 4 J. A. Bowman heirs, NW NE NW section 27-16n-4w, Vernon Township, as the only other Isabella County test nearing completion.

Midland County

Three tests were nearing completion in the Dundee, one in Porter and the other in Lee Township.

Pure Oil Co. No. 7 C. D. Alexander, SE NE NE section 19-13n-1w, Porter Township, had been treated with acid, while the same company's No. 8 Alexander, section 19, was drilling near the Dundee.

W. Hunter Atha's No. 2-A F. H. Talker, SW NE SE section 7-15n-1w, Lee Township, was casing above the Dundee before drilling in.

Rex Oil & Gas Co. No. 3 Frank Howland, NE SW NW section 23, Porter Township, was delayed in Dundee completion by a fire which destroyed the rig housing.

Ogemaw County

Largest of three completions in as many townships in Ogemaw County was Fred Clark and Cleston Johnson No. 2 Himelhoch and others, NW NE SW section 6-21-3e, Mills Township. It made about 200 bbls. daily after acid treatment in the Dundee topped at 2,450 feet and drilled to 2,612 feet. It is one of the best wells in the south end of the pool.

Weber Oil Co. finally completed its No. 2 Boeing estate, SE SW SE section 36-22n-2e, West Branch Township, with an initial production of 120 bbls. from the Dundee despite a high percentage of water.

Sun Oil Co. No. 1 State Department of Conservation, NE SE NE section 1-21n-2e, Horton Township, a direct south offset to the Fortney Oil Co. big No. 1 State discovery, had an estimated output of 50 bbls. a day in the Traverse topped at 1,682 feet and drilled to 1,811.5 feet. The Fortney well is reported still making about 800 bbls. a day after an initial flow of about 10,000 bbls. as the biggest Ogemaw well.

Charlotte G. Marsh, trustee No. 1 State, NW NE SW section 6, Mills Township, struck lower Traverse pay which filled up within 400 feet of the surface after it was decided to abandon efforts to make commercial production in the first Traverse pay and drill on to the Dundee.

United Drillers, Inc. were still completing their No. 1 Thomas Rau, NE NE SW section 19, West Branch Township, previously drilled to a total depth of 2,732 feet in Dundee.

Saginaw County

The Smith Petroleum Co. completed another small Berea producer in the Birch Run Township field of Saginaw County. It was the No. 1 Charles W. Bois, SE NW NE section 20-10n-6e, which topped the shallow oil sands at 1,524 feet and finished at 1,544 feet.

Wildcats

A show of Berea oil was encountered last week by the Smith Petroleum Co., of Saginaw, in its No. 1 Thomas A. Jolly, NW NW NW section 5-9n-8e, a wildcat test in Forest Township, Genessee County.

The formation was topped at 1,447 feet and the show encountered between 1,458 and 1,463 feet. Drilling was continued after water was struck at 1,465 feet.

Rowmer Corp. was drilling at more than 1,300 feet in another Genessee County test on the George Gillespie lease, SW SW SW section 3-5n-5e, Argentine Township.

Alcona County

After abandonment of two shallow gas tests in Hawes Township, Alcona County, two weeks ago, Dr. Virgil R. D. Kirkham decided to plug and abandon two other northeastern Michigan tests. No. 1 J. Jozwiak, NW SE NW section 25-28n-9e, Alcona Township and County, was completed at 381 feet after testing a gas show in the top of the Traverse at 351 feet.

The No. 1 Carl M. Lund estate, NE NE NE section 23-27n-9e, Haynes Township, also was abandoned at 558 feet after testing of a considerable show in the Antrim shale, 6 miles south of the Kozwiak.

Doctor Kirkham is drilling another test on the Robert Apsey lease, NW NE NE section 20-27n-8e, Hawes Township.

Allegan County

Gerrit Vander Leest No. 1 Harm Berens, SW SE NE section 26-4n-14w, Overisal Township, Allegan County, is to be plugged as a duster in the Traverse at 1,602 feet.

Bay County

M. C. Fordyce No. 1 Mike Suszko, SE SE NE section 11-18n-3e, Gibson Township, Bay County, was ready to treat a show of oil in the Traverse after plugging back from failure in the Dundee.

Kent County

The National Minerals Corp. No. 1 Jasper Lewis, SE SE SW section 5-10n-11w, Solon Township, Kent County, was cased and shut down at 2,853 feet to complete in the Dundee this week.

Mason County

Drilling had been resumed in the Dragoon Development Co. No. 1 W. K. Young, SW NW NW section 15-17n-15w, Logan Township, Mason County, reaching a depth of 2,350 feet after being shut down at 2,300 feet for several weeks.

Huron County

Wallace Markle No. 1 Frank Opoka, NE NE SE section 4-15n-11e, Grant Township, Huron County, was drilling at more than 2,435 feet.

Ionia County

Despite several disappointments, operators last week were eagerly awaiting completion of R. A. Greer and S. W. Meals No. 1 John B. Welch, SE NE section 33-8n-6w, Ronald Township wildcat in Ionia County. A new test was being started in section 9, Orleans Township, where a failure in the Dundee recently was recorded in section 36.

Wexford County

M. J. Ingold is plugging back to test a Traverse show in his No. 1 E. Webb, C SW section 13-22n-9w, Haring Township, after failure to

develop commercial production in the Dundee.

New Locations

Four of the 24 permits issued last week by the state conservation department are for wildcat locations in Ionia, Gratiot, Lenawee and St. Clair Counties.

The Wittmer Co., of Pittsburgh, Pa., will drill No. 1 S. H. Kimball, SE SW SE section 15-7n-5w, Lyons Township, Ionia County. George Boyce has erected a rig for his No. 1 Wheeler, C SW NW section 9-8n-7w, in Orleans Township, Ionia County.

Herbert Snell will drill No. 1 Frank Howe, SW NE SW section 19-10n-2w, North Star Township, Gratiot County. The new Lenawee County test in south central Michigan will be drilled by Mott & Denman, of Adrian, on the Fannie Huffman lease, NE SE NE section 26-6s-3e, Adrian Township.

The fourth test will be the Pyramid Oil & Mineral Development Corp. No. 3 Thomas Draper, P. C. No. 244, Township 7n-17e, Fort Gratiot Township, St. Clair County.

Three permits were issued for new Saginaw County tests, one to the Smith Petroleum Co. for its No. 2 Charles W. Bois, NE NW NE section 20-10n-6e, Birch Run Township, another to the Mid-State Development Co. for the No. 1 A. J. Burleson, SE SW SE section 21-10n-5e, Taymouth Township, a wildcat location and the third to Lewis Burr for the No. 1 Susan Palmer, NE NE NW section 19, Birch Run Township.

Seven permits were issued to the Isabella Oil Co., Inc., of Clare, as the start of a $200,000 drilling campaign in the Crystal-Ferris Township field of Montcalm County during the winter months.

All of the seven are for locations in sections 26, 27 and 34 of Ferris Township as follows: No. 1 Albert Conner, SE SE NE section 27-11n-5w; No. 2 Conner, NE SE NE section 27; No. 1 Charles A. Reid, SE NE NW section 26; No. 2 Reid, SW NE NW section 26; No. 3 William Strait, SW SE SE section 34; B. No. 4 Strait, SE SW SE section 34, and C. No. 1 Strait, SW NE SE section 34.

Morris-Barnes Oil & Gas Syndicate received a permit for its No. 1 Charles R. Reid, SW SW SW section 23, as the eighth Ferris Township location of the week.

Five permits were issued for new locations in Crystal Township as follows: Rowmor Corp. No. 1 Frank H. Lamphier, SW SW NE section 2-10n-5w; Gordon Oil Co. No. 5 William Strait, SW SE NW section 3; Gordon No. 6 Strait, NW SE NW same section; Gordon No. 7 Strait, SW NE NW section 3, and Gordon No. 8 Strait, NW NE NW section 3.

Pure Oil Co. took out two permits for Porter and one for Jasper Township wells as follows: No. 20 Mina Narmore, NW NW SW section 15-13n-1w, and No. 21 Narmore, NW NE SW section 15, both in Porter, and the No. 1 C Emma O. Reed, C S half SW SE section 1-13n-2w, Jasper.

The other new permit of the week was taken out by the Consolidated Petroleum Producers, Inc., on the Evan Crow lease, NW NE SW section 36-22n-2e, West Branch Township, Ogemaw County.

In contrast with the previous week when most of the new permits were for gas tests in central Michigan, last week's were chiefly for oil tests.

Gas Field Operations in N. Y.-Penn.

COUDERSPORT, Pa., Dec. 2.—There were no completions in the New York and adjacent Pennsylvania Oriskany gas fields during the week. Godfrey L. Cabot was cementing at 5,280 feet on the A. G. Lyman farm, Ulysses Township, Potter County, for the farthest advanced test in the Pennsylvania section, while in New York Belmont Quadrangle Development was drilling at 3,960 feet after finding the Tully at 3,920 feet on the C. D. Regan farm, Alma Township, Allegany County.

Pennsylvania Drilling

Godfrey L. Cabot was drilling at 2,000 feet on the Duke estate property, Genesee Township, Potter County. P. P. & L. Co. was fishing at 360 feet on the Joe Trimmer farm, Clymer Township, Tioga County. Miller Ake and others were drilling at 510 feet on the Walter Burrell farm, Genesee Township, Potter County. Penn York Natural Gas Co. was idle on its location on the Theodore Cobb farm, same township and county. Hanley and Bird were drilling at 2,850 feet on its No. 2 Burd, Allegany Township, same county. Potter Development Co. and others were drilling at 355 feet on the Walter Burrell farm, Genesee Township, same county.

New York Drilling

Coy Kendall was spudding at 20 feet on the S. Murphy farm, Rome Township, Oneida County. Bayless and others were drilling at 1,880 feet on the H. Behrens farm, Allen Township, Allegany County. Belmont Quadrangle Development Co. was moving in on the Thomas Burns farm, Alma Township, same county. Schrack and others were drilling at 1,050 feet on the Lewis and Knox lease, same township and county. Becker and others were rigging up for a No. 2 Burns, in the same township and county. Godfrey L. Cabot was building a rig on the Gillette farm, Amity Township, same county. Wyoga Oil & Gas Co. was building a rig on the Henry Knox farm, Willing Township, same county.

Wittmer Oil & Gas Co. was spudding on the Snyder farm, Angelica Township, same county. Same company was drilling at 1,525 feet on the Byron Shultz farm, Avoca Township, Steuben County. Same company was drilling at 1,610 feet on the William Ackley farm, Greenwood Township, same county. Same company was drilling at 2,175 feet on the G. Losey farm, Danville Township, same county. Utica Natural Gas Co. was shut down at 110 feet on the William Grimm farm, Western Township, Oneida County. Wyoga Oil & Gas Co. was shut down at 3,730 feet on the Estee farm, Charlotte Township, Chautauqua County. Belmont Quadrangle Development Co. was rigging up on the Percy Curtis farm, Leon Township, Cattaraugus County.

Colon Production

Production of Colon Oil Corp.'s subsidiary in Venezuela, for the four weeks ending November 23, was 354,600 bbls.

A. E. Johnson, president of the Argo Oil Co., has returned to Denver from the A.P.I. meeting in California.

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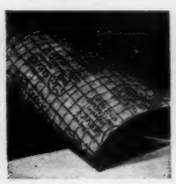

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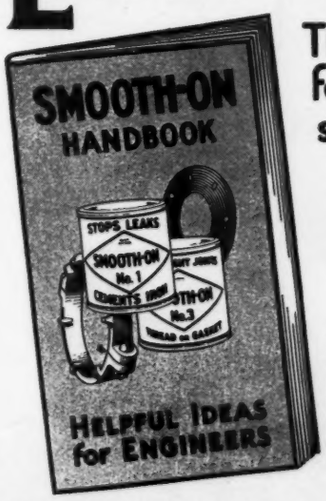

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Kansas Developments

By JAMES McINTYRE

EXTENSIONS TO FIVE POOLS; STEADY GROWTH OF STECKEL

Development the past week in Kansas brought no new discoveries, which, incidentally, is news in itself for this state, but good fortune was in the ascendancy for five pools as they were given important extensions. The Lorraine pool in Ellsworth County was extended one location west; the Gouldner and Steckel pools in Rice County were extended two locations, the first to the northwest and the last to the southwest; Hunton lime production was found two locations south of the former producing limit of the Burrton pool in Reno County and the Oxford City pool's deep pay zone was found to exist one-quarter mile south of its previous boundary.

Adversities were also recorded and the long awaited answer to the question of the Burrton pool's westerly limit was given in part by the completion of a dry hole on that side of the field. The spectacular well in the Schulte pool of Sedgwick County was offset by a dry hole. The big well referred to in the Schulte pool is D. Lauck and Shore Line Oil Co. No. 3 Jordan, NW NW SE section 6-28s-1w, which, in early November came in flowing 1,448 bbls. of oil with lots of water, the production coming from the Simpson dolomite, topped at 3,666 feet.

There were 14 oil wells completed in the state with an average first day's initial production per well of 869 bbls. This average is exceptionally good. Initial gauges ranged from 1,938 bbls. to 56 bbls. There were no gas wells brought in and seven tests resulted in dry holes, four of which were wildcats. There were 33 new operations started, including six wildcat ventures. The new wildcats were divided by counties as follows: Russell, three; Rush, Rice and Harvey, one each.

Ellsworth County

Empire Oil & Refining Co. No. 1 Dees, NE NW NW section 23-17s-9w, extended the Lorraine pool of Ellsworth County one location west. It pumped 1,938 bbls. of oil on its potential test, production coming from the Siliceous lime topped at 3,170 feet and drilled to 3,173 feet, total depth. Seven-inch pipe was set at 3,172 feet and the production test made. It is a completion. Ponds were dug for No. 2 Dees in the SE NW NW of same section.

The Texas Co. staked a location for its No. 2 Becker in the SE NE SE section 26-17s-10w, in the Heiken pool of Ellsworth County.

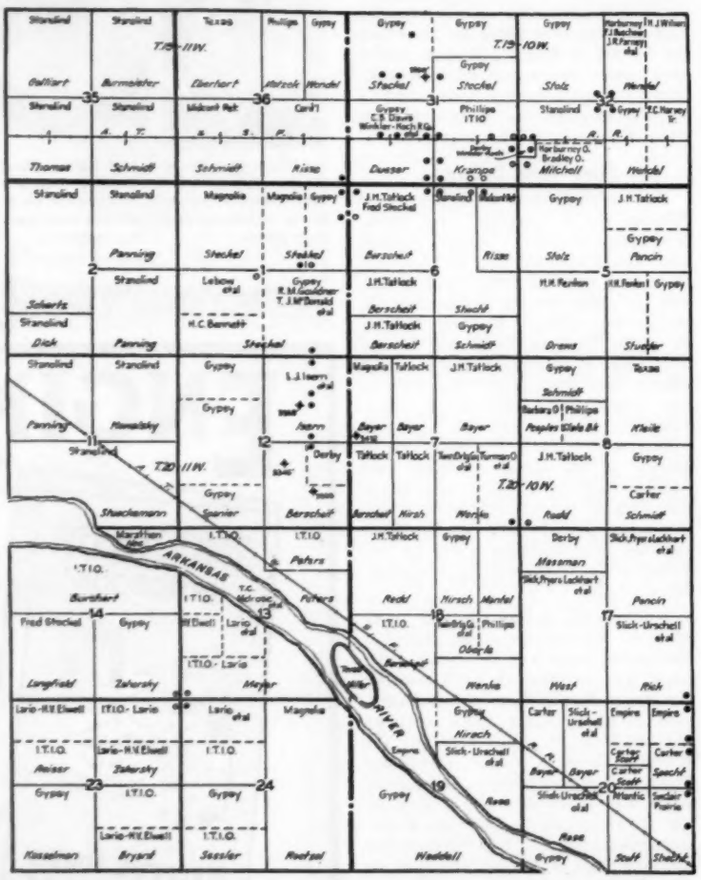
Russell County

Russell County, with all its activity, came through with only one well completed during the week, and that was a dry hole. Empire Oil & Refining Co. No. 4 Ehrich, NE SE SE section 28-13s-14w, Russell pool, set 8-inch pipe at 3,233 feet, drilled Siliceous lime from 3,298 feet to 3,304 feet, total depth, where it bailed 3 bbls. oil per hour. It was then acidized with 2,000 gallons and 4,000 gallons to yield only 6 bbls. of oil with 60 bbls. of water on the pump, and the test was abandoned.

New development started in Russell County during the week included three projects of wildcat characteristics. They were Warren Oil Co. No. 1 Bratton, SE cor. section 25-11s-13w, moving in material; Winkler & Koch No. 1 McAllister, NE SE section 9-12s-13w, rig up, and Empire Oil & Refining Co. No. 1 Major Community, SE cor. section 11-14s-12w, a location. Other new developments in the county were: Joe Aylward No. 1 Ginther, 8W SE NW section 19-12s-15w, building rig; The Texas Co. No. 2 Anschutz, NE NW SW section 1-14s-15w, cellar, and the same company No. 3 Johnson, SE NE NE section 2-14s-15w, cellar. Smoky Hill Oil Corp. No. 3 Miller, NE NW NE section 3-14s-13w, was material on ground.

Rice County

Rice County's hot spot of the moment in regard to producers of large capacity is the Steckel pool in the southwest corner of the county. The past week saw three wells completed for a combined first day's initial production of 3,433 bbls. of oil. Recently this pool has been getting some noteworthy production and it promises to be one of the state's best. Each week of late has witnessed either an extension to the pool or indications of one. This week's completions were Stanolind Oil & Gas Co. No. 2 Specht, NE NW NE section 6-20s-10w, producing 1,079 bbls. of oil in 21 hours from Siliceous lime at 3,295-3,347 feet, total depth. Before the potential test of production was taken, however, the well was plugged back to 3,342 feet, where it was treated with 3,000 gallons of acid and shot with 20 quarts of nitroglycerin.



Steckel area in Barton and Rice Counties, which is reaching out to take in the Isern pool, is Kansas' most interesting field

(Copyrighted by Mid-Continent Map Co., Wichita, Kans.)

J. H. Tatlock No. 3 Berscheit, NE NW section 6-20s-10w, set 6-inch pipe at 3,280 feet and drilled into the Siliceous lime at 3,277 feet, stopping at 3,291 feet, total depth. It filled 5,000 feet with oil in one hour and on a production test pumped 1,241 bbls. of oil in 24 hours.

Phillips Petroleum Co. and Indian Territory Illuminating Oil Co. No. 7 Krampe, SE NE SE section 31-19s-10w, set 7-inch pipe at 3,281 feet and on a test of the Siliceous lime encountered from 3,281 feet to 3,285 feet, total depth, pumped 1,113 bbls. of oil in 24 hours.

The Steckel pool's indication of an extension was in Lebow & Bennett No. 1 Steckel, in the NE SW section 1-20s-11w, which is two locations southwest of the pool and one-half mile northwest of the Isern pool of Barton County. This test topped Siliceous lime at 3,285 feet and at 3,325 feet, total depth, had 1,100 feet of oil standing in the hole.

The Keesling pool continued to lengthen its string of producers and during the week Stanolind Oil & Gas Co. No. 1 Smith, NE SE section 16-20s-9w, came in for 1,502 bbls. of oil on its potential test. It is completed in the Siliceous lime logged at 3,233-3,261 feet, total depth, and is the fifteenth producer for the pool. The pool at this time is approximately two locations wide and 1 mile long.

Marathon Oil Co. completed No. 6 Proffitt, SE SW NW section 5-20s-9w, in the Chase pool, the well averaging 1,027 bbls. of oil on a two-day test. Six-inch casing was set at 3,224 feet and Siliceous lime topped at 3,234 feet, was drilled to 3,245 feet, total depth.

A good well was added to the Stumps pool when Slick-Urschel, Pryor & Lockhart and others No. 1 Volkland, SE NE section 5-18s-10w, gauged 948 bbls. of oil initially from the Siliceous lime logged at 3,237-54 feet, total depth. It is the fourth completion for the pool.

North of the Chase pool, the Byers area continues to be proven favorably and this week a second producer for the north edge was brought in. National Refining Co. and others No. 3 Reese, SE NW SW section 16-19s-9w, pumped 208 bbls. of oil for a three-day average from Siliceous lime encountered from 3,215 feet to 3,226 feet, total depth. The well was not officially completed, however. There are 2½ miles of unproven area to the north of the Byers pool which will no doubt be tested.

One and one-half miles west of the Gouldner pool in Rice County, Empire Oil & Refining Co. completed as a dry hole its No. 1 Schroder, a wildcat in the SW SE SE section 7-18s-9w. A long of the well shows Oswald lime 2,890 feet, Conglomerate 3,178 feet, Siliceous lime 3,249 feet; total depth, 3,268 feet. A small

show of oil was had at 3,250 feet but a hole full of water was encountered at 3,266 feet and the test abandoned.

Two locations northwest of the Gouldner pool in Rice County, Empire Oil & Refining Co. No. 1 Gouldner, SW SE SW section 9-18s-9w, was completed in the Siliceous lime drilled from 3,242 to 3,245 feet, total depth, where it pumped 188 bbls. of oil in 20½ hours on its potential gauge.

Shell Petroleum Corp. and associates No. 7 Ploog, 440 feet south and 1,320 feet west of the center of section 33-18s-9w, in the Ploog pool, is completed in Siliceous lime for 441 bbls. of oil in 24 hours after having been treated with 1,000 gallons and 2,000 gallons of acid. The pay zone was logged from 3,226 to 3,243 feet, total depth.

Probably playing the trend of production indicated between the Richardson pool in Stafford County and the Raymond pool of western Rice County, L. H. Wentz has staked location for No. 1 Bushong in the SW cor. section 30-21s-10w. This is a wildcat location on a seismographed high and will be an important test. Other new developments in Rice County the past week were Empire Oil & Refining Co. No. 2 Gouldner, a location in the SE SW section 9-18s-9w; Continental Oil Co. No. 1 Sherman, SE NE NW section 8-18s-7w, a location, and Mid-Continent Petroleum Corp. No. 5 Hartle, NW SE NW section 15-20s-9w, a location in the Keesling pool.

Estimated Production

Estimated daily average production of Kansas for the week ending November 30 and for the preceding week is as follows:

	Barrels	
	Nov. 30	Nov. 23
Oxford City	5,550	5,075
Burrton	18,750	18,850
Ritz-Canton	6,650	6,775
Hollow	3,025	2,750
Voshell	3,450	3,300
Nikkel	2,450	2,525
Ellsworth County:		
Lorraine	9,190	9,965
Other pools	2,085	2,000
Rice County:		
Chase	10,570	11,750
Raymond	2,100	2,725
Steckel	4,170	3,750
Keesling	2,510	2,110
Other pools	3,550	3,765
Russell County:		
Fairport	3,050	2,170
Gorham	3,240	3,050
Russell	2,560	2,680
Other pools	2,640	2,420
Sedgwick County:		
Valley Center	1,465	1,450
Greenwich	1,645	1,660
Robbins	2,130	1,930
Eastborough	990	1,010
Remainder	802	800
Barton County	2,637	1,460
Ellis County	482	550
Kingman County	954	950
Stafford County	1,879	1,810
Greenwood County	10,900	10,750
Butler County	17,700	17,750
Other fields	18,651	17,845
Total Kansas	145,775	144,125

Stafford County

In Stafford County, Atlantic Oil Producing Co., Phillips Petroleum Co. and associates No. 1 Brown community, C NW NE section 16-23s-13w, a wildcat test situated in the central part of the county just north of the town of St. John, was drilled to 3,940 feet, stopping 40 feet in the Siliceous lime. It had a small showing of oil from 3,905 to 3,910 feet, later to indicate water in a core from 3,916 feet to 3,919½ feet, and was abandoned.

Rush County

Ramsey Petroleum Co. and others have temporarily abandoned No. 1 Darkes, a wildcat located 1,320 feet south and 440 feet east of the NW cor. section 5-17s-20w, in western Rush County. The test stopped at 4,242 feet, and Siliceous lime was topped at 4,101 feet. At 4,122 feet, a hole full of water was encountered and at 4,240 feet the operators reported a small showing of gas.

In northeastern Rush County, Torry & Feaster and others have made a location in the SE cor. section 15-16s-16w, for their No. 1 Winget, a wildcat venture being undertaken on the strength of subsurface information and the possibilities of a trend.

Reno County

Sinclair Prairie Oil & Gas Co. extended the Hunton lime productive limit of the Burrton pool in Reno County this past week when its No. 1 Matlock, NW NE SW section 3-24s-4w, two locations southwest of the pool's Hunton lime production, came in for 634 bbls. of oil from that horizon after being acidized with 1,000 gallons. Hunton lime was logged at 3,593 feet and drilled to 3,601 feet, total depth. It is completed.

A disappointing thing for the Burrton pool was the establishment during the week of its westerly limit —at least in part—through the result of Olson Oil Co. and Shell Petroleum Corp. No. 3 Krehbiel "B," C W half W half NW section 26-23s-4w. This test, offsetting production on the west side of the pool, topped Hunton lime at 3,600 feet and got an oil showing at 3,604 feet, later to develop a hole full of water from 3,616 to 3,618 feet, total depth. It was shut down for orders.

Reno County's only first report was Magnolia Petroleum Co. No. 1 Harris, a location in the SE SW NW section 9-26s-4w, a west offset to the same company's No. 1 Rodgers, which extended the Hilger pool one-half mile north last week by swabbing 201 bbls. of oil in four hours from the Viola lime recorded from 4,040 feet to 4,042 feet, total depth.

McPherson County

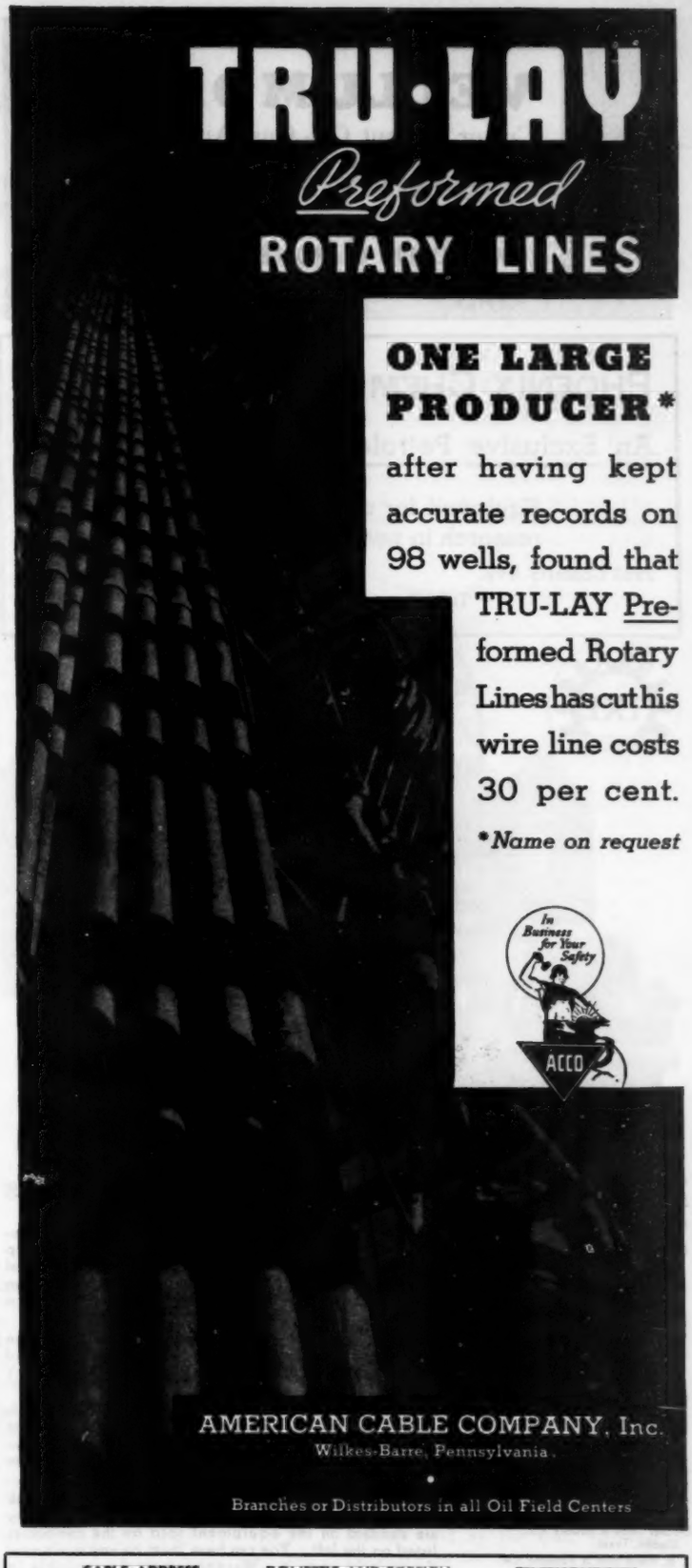
Whan and others have abandoned their wildcat in central McPherson County northwest of the Hillsboro pool. It is No. 1 Stromquist, in the SW SE SE section 2-19s-3w. This test was carried on down from an old total depth of 1,020 feet, where it was dry and abandoned by Aldrich and others, to its present total depth of 2,455 feet, presumably in the Kansas City lime topped at 2,397 feet.

D. Lauck failed to uncover the anticipated pay in his No. 2 Gillespie, NE SW section 6-28s-1w, a west offset to the somewhat spectacular No. 3 Jordan, recently completed in the Schulte pool of central Sedgwick County. The No. 2 Gillespie topped the Simpson formation at 3,693 feet and at 1 foot in filled to the top with water and the test is abandoned at 3,694 feet.

Shell Petroleum Corp. has deepened its No. 1 Fischer, NE SE section 15-26s-2e, Greenwich pool in McPherson County, from old total depth of 3,202 feet, to 3,339 feet, total depth, in Siliceous lime, where it swabbed 62 bbls. of oil and salt water in 24 hours. It was then plugged back to 3,335 feet and shot with 8 quarts of nitroglycerin to swab 112 bbls. of oil in three hours.

Butler County

Bennett & Abel No. 1-A Simkins, C E half NW NW section 25-26s-4, on the south end of the Eldorado pool in Butler County, is abandoned at 2,691 feet because water production was so much greater than the oil. The Pay zone at 2,685-87 feet,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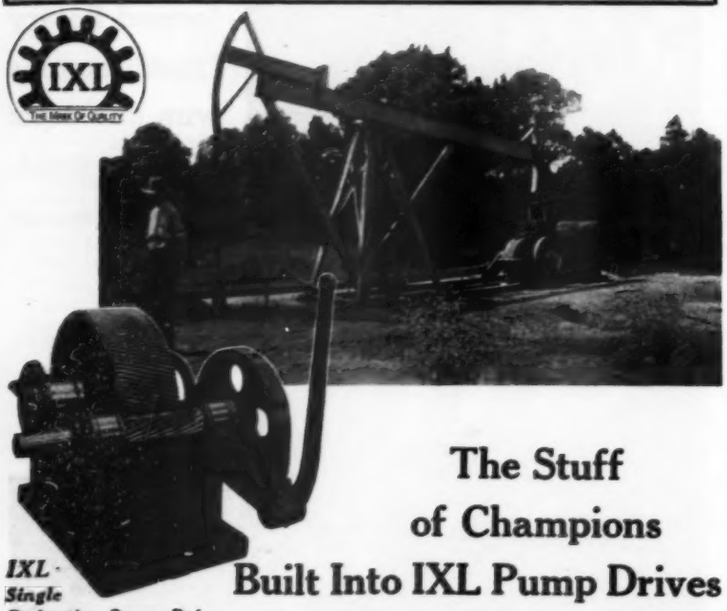

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W. C. Norris Mfg. Co., Inc., Tulsa, Okla.
Oklahoma Iron Works, Tulsa.
Star Mfg. Co., Oklahoma City.
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produced an estimated 10 bbls. of oil and 180 bbls. of water in 24 hours after being acidized with 1,000 gallons.

There were four new operations started in Butler County during the week. They were Cosmic Oil Co. No. 1-B Joseph, NE NE SW SE section 25-24s-3e, rigging up; Eldorado Refining Co. No. 1 Moore, NW SE SE section 11-25s-3e, cleaning out at 163 feet; Cox & McGinnis No. 1 Huston, 850 feet south and 990 feet east of the NW cor. SW ¼ section 6-25s-4e, drilling at 2,250 feet, and Sooby & Keene No. 1 Rutherford, 100 feet north and west of the SE cor. section 7-29s-4e, drilling at 1,750 feet.

Harvey County

Harvey County development consisted of routine drilling operations on two pool wells and the addition of three proposed tests, the most important of which is the Western Kansas Oil & Refining Co. No. 1 Warkentin, located in the C SW SW section 1-23s-2w, a wildcat just south of the Halstead pool. Material is being moved in on location.

Other new development in Harvey County was Sunray Oil Co. No. 1 Hege, SW NW SW section 13-22s-2w, in the Sperling pool, with material on ground, and, McDonald and others No. 1 Schmidt, NE SE NE section 30-22s-3w, in the Hollow pool, rig up.

Marion County

Aylward, Corn and others No. 1 Rempel, NE cor. section 13-19s-2, in the Hillsboro pool of Marion County, extended production two locations south when it recorded a gauge of 164 bbls. of oil and 170 bbls. of water in 24 hours on the pump after being treated with 1,000 gallons of acid. Production is from 6 feet of Viola lime topped at 2,844 feet, with total depth at 2,850 feet.

Coffey County

Coffey County can boast only one operation and that a location of the past week. Franklin Drilling Co. has staked a location in the C E half SE SE section 1-23s-14e, for its No. 3 Rossillion.

Greenwood County

There were no completions in Greenwood County this week. However, there were two new operations reported nearly completed and one new test started with the rig complete. In the Virgil district of eastern Greenwood County, A. M. Landon was shut down on his No. 4 Parish, C W half SW NE section 16-24s-12, after acidizing with 1,000 gallons the lime formation from 1,655-73 feet, total depth, which pumped 25 bbls. of oil in 24 hours before acid treatment. In the same area Oko Oil Co. No. 13 Shadel, NE SW SE section 15-23s-13, topped lime at 1,762 feet, encountering oil shows at 1,787 feet and 1,815 feet. It was treated with 1,000 gallons of acid and is estimated good for 5 bbls. of oil daily. As yet it is not a completion and total depth is 1,822 feet.

Rig is up for No. 1 Agard, McIntire and Sherman's new test starting in the SW SE NE section 23-24s-9e, in the Thrall pool of Greenwood County.

Sumner County

Activity in Sumner County continues to be concentrated in and around the Oxford City pool where the Dolomite has made this year oil history. This past week, however, the only completion is Shell Petroleum Corp. No. 10 Emrich, 611 feet north and 200 feet east of the SW cor. SE¼ section 14-32s-2e. This test, originally completed in the Stalnaker sand at 2,014-2,114 feet, for 805 bbls. of oil, is now recompleted in the Simpson dolomite formation encountered from 2,879 to 2,916 feet, total depth, making 949 bbls. of oil in 24 hours on its potential test.

Of considerable importance is the extension of the Dolomite production in the Oxford City pool by Carlock and others No. 1-A Wenrich, in the NE NW SW section 23-32s-2e. Simpson dolomite topped at 2,950 feet yielded a saturated core from 2,968 to 2,983 feet, total depth, and the hole is standing full of oil while the 5-inch pipe is being run. This potential producer extends the deep pay zone over one-quarter mile to the south.

At this time there are four locations and 11 drilling wells in the Oxford City pool, all of which are probably scheduled to test the Simpson dolomite horizon. With the extension this week there should be an increase soon in the number of operations for the pool. Roy Ramsey has started to deepen his No. 1 Town lot, located 450 feet south and 835 feet east of the NW cor. NE¼ section 14-32-2, and Lario Oil & Gas Co. and Barnsdall Oil Co. were moving in material to drill their No. 12-A, a new location in the SW NE NW section 23-32s-2.

Cowley County

Cowley County is quite active with four locations, five rigs and eight drilling wells. This week Lloyd, Frost & Study completed their No. 1 Carson, NW NE NE section 33-31s-3e, in the pool recently opened by same operators at No. 1 Weathered, the north offset, which came in for better than 600 bbls. of oil from the Siliceous lime. No. 1 Carson is the second producer in the pool and is showing up better than the discovery by pumping 849 bbls. of oil the first 24 hours after treating the Siliceous lime from 3,341-57 feet, total depth, with 1,000 gallons of acid.

Near the Kansas-Oklahoma state line, Alma Petroleum Co. has completed its No. 2 Gregory, SE SW SE section 6-35s-3e, is sand logged from 3,431-98 feet, total depth. It pumped 56 bbls. of oil on its potential gauge after the sand was shot with 60 quarts of nitroglycerin. This is a northwest offset to the discovery well in this small pool which was opened up last January. The wells have thus far been small producers, with the greatest initial production from any one being around 150 bbls.

There were three new operations started in Cowley County. Alma Petroleum Co. No. 3 Gregory, NW SE SE section 6-35s-3, building rig; A. M. Landon No. 1 Drury, 330 feet south and 230 feet east of the NW cor. section 32-31s-6, rigging up, and the Derby Oil Co. No. 1 Davis, SW NE section 2-31s-4e, a location.

Ferd J. Spang, president of Spang & Co., Butler, Pa., on his return from California, was met by Mrs. Spang and their daughter, Louise, at Norman, Okla., where they visited another daughter, Margaret, who is a student at Oklahoma University. They spent the week in Tulsa as guests of Mr. and Mrs. W. L. Walker, and will return to Butler by way of Kansas, Illinois, Indiana and Michigan, where Mr. Spang will call on the trade.

Texas and Louisiana Gulf

DICKINSON FIELD EXTENDED; NEW SANDS IN PORT BARRE

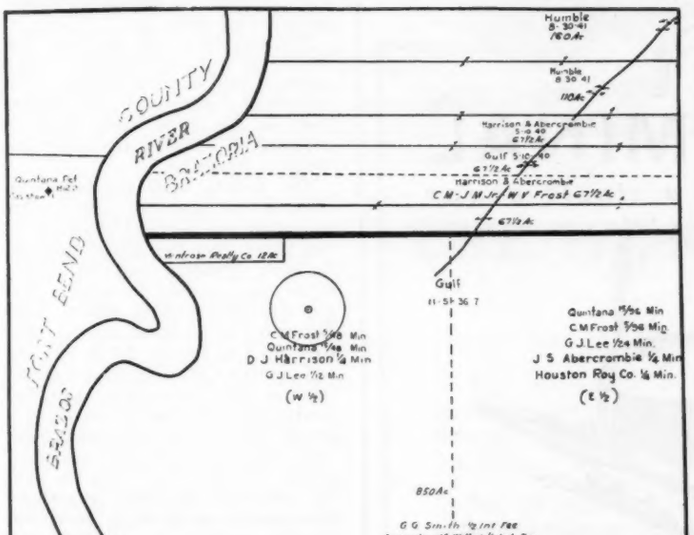
By
F. L. SINGLETON

HOUSTON, Tex., Dec. 2.—A 2,000-foot northeast extension was marked up for the Dickinson field, Galveston County, by the completion of Humble Oil & Refining Co. No. 1 San Leon Farm Co., which flowed 30 bbls. per hour through a quarter-inch choke with tubing pressure 1,500 pounds and casing pressure 1,600 pounds. The oil sand was topped at 7,995 feet and with 7-inch casing cemented at 8,010 feet, it was drilled at a total depth of 8,060 feet. The well is located northeast of the company's No. 1 Anderson which produces from the 9,100-foot sand. This is the second large extension within the past two weeks and it is apparent that the best part of this field is just now being developed. In the northern part, located on the north bank of the Dickinson Bayou, Stanolind Oil & Gas Co. No. 2 State cored oil sand from 9,124-34 feet and was making an electrical coring test at a total depth of 9,136 feet. This is the first test to encounter the 9,100-foot sand in this part of the Dickinson field. The company's No. 3 State, situated 633 feet southeast of No. 1, cored oil sand from 8,097-8,124 feet and is running 7-inch casing preparatory to testing. One of the most interesting tests in the field is Coast Petroleum Co. No. 2 Maco Stewart, located 2½ miles southeast of the nearest oil well and 660 feet due west of the company's No. 1 Stewart, a distillate producer. It is bottomed at 8,657 feet and is waiting for casing to be cemented after an electrical coring test indicated three possible sands from 8,415-32, 8,590-8,626 and 8,622-32 feet. The sands indicated showed as high as 70 millivolts porosity with 6 to 16½ ohms resistance. It is bottomed 114 feet lower than the first test and based on geological markers is over 100 feet structurally lower. Location is in the W. E. Wilson Survey.

Anahuac Outpost

At the Anahuac field, Chambers County, Domestic Exploration Co. No. 1 Marshall, an outpost test located a mile west of production, was holding the attention of operators in that field as it drilled in sticky shale below 6,467 feet. Although the top of the Discorbis picked from 5,997-6,010 feet has not been confirmed, it is considered by some to have a good chance to produce. Using 6,010 feet as the top of the Discorbis places it only about 60 feet lower than Humble Oil & Refining Co. No. 7 Middleton, a producer in section 56. Location is in section 55, H.&T.C. Survey. Another interesting outpost test is Anderson and Johnson No. 1 White, about 2 miles due north of the north extension area in the James McGahey Survey. It is drilling in shale below 6,980 feet and is apparently too low to produce. The Discorbis was topped at 6,166 feet, Heterostegina 6,541 feet and the Marginulina at 6,848 feet. Based on the latter marker it is over 100 feet lower than Humble Oil & Refining Co. and others No. 1 White. In south part of field in section 58, Humble Oil & Refining Co. No. 8 Middleton topped the sand at 6,905 feet and was completed at 7,085 feet for an initial production of 28 bbls. per hour through a one-quarter inch choke with tubing pressure 1,400 pounds and casing pressure 1,700 pounds. Four other tests are scheduled to be completed during the week. They are Humble Oil & Refining Co. No. 2 Broussard in section 59, bottomed in oil sand at 7,083 feet with 7-inch casing set at 7,042 feet; No. 9 Middleton, section 58, bottomed at 7,080 feet with 7-inch casing set at 7,042 feet. The Discorbis was topped at 5,984 feet, Heterostegina at 6,224 feet, Marginulina at 6,557 feet and the Frio at 6,964 feet. In the north extension area, the company's No. 4 White, topped the Discorbis at 5,899 feet, Heterostegina at 6,250 feet, Marginulina at 6,583 feet and it is bottomed in sand at 7,080 feet with 7-inch casing cemented at 7,042 feet. In the same area, Sun Oil Co.'s No. 4 White is bottomed in sand at 7,084 feet and the hole is being reamed preparatory to running casing. Gulf Production Co. is building derrick for No. 2 Knowles, located due south of No. 1, a dry hole in the SW cor. of section 48.

Sterling Oil & Refining Co. No. 1 Dean, located about 1,000 feet west of production in the South Houston field, Harris County, was deepened to 4,791 feet, where it was recompleted for an initial production of 12 bbls. of pipe line oil per hour through a one-quarter inch choke with tubing pressure 300 pounds. It was first completed at 4,734 feet and flowed considerable oil before going dead. Gravity of the oil tested 28 degrees and the well is the best to be completed in the field. Location is in Lot 152, Block 6, in the Mary Nichols Survey. Northeast in drilling district No. 21, Stanolind Oil & Gas Co. is preparing to set casing after a nine-minute drill stem test from 3,990-4,015 feet, tested 75 pounds of pressure and 810 feet of oil through a one-quarter inch choke.



Location of Gulf Production Co. No. 1 Wilkes and Smith, a wildcat, located on the Lockridge prospect, northwestern Brazoria County, which is preparing to make a drill stem test at 6,301 feet after encountering odors of oil and gas below 6,170 feet

(Map courtesy of W. W. Zingery, Esperson Building, Houston, Tex.)

Hastings Extension Test

Stanolind Oil & Gas Co. has further extended its development to the southeast at the Hastings field by the announcement location for No. 1 F. M. Berger, located 240 feet south and 330 feet east of the northwest corner of a 15.83-acre tract in the H.T.&B. Survey No. 37. It is southeast of No. 1 Hutchinson and the first test to be drilled in Survey No. 37. To the north in Survey No. 36, the company's No. 2 Shaw cored oil sand to 5,944 feet and has cemented 7-inch casing at 5,690 feet.

Danciger Oil & Refining Co. No. 4 Minnetex, located in the Mykawa field, Harris County, is preparing to test a deep sand bottomed at 5,155 feet after cementing 5½-inch casing at 4,968 feet. Location is in Block 192 of the W. H. Lovett Survey. The majority of the wells are producing from sand at approximately 4,400 feet.

Pickett Ridge Failure

The third failure for the Pickett Ridge field, Wharton County, was marked up when Texas Co. abandoned its No. 5-A Pierce at 4,900 feet. Location is northeast of No. 3-A in the I.&G.N. Survey.

On the Ameila prospect, northeastern Jefferson County, Humble Oil & Refining Co. No. 1 R. C. Miller cored salt water sand in the Marginulina sand, and was abandoned at 6,470 feet. It topped the Miocene sand at 3,133-64 feet, Discorbis at 5,491 feet, Heterostegina at 5,797 feet and the Marginulina at 5,950 feet. To the southeast and on the same block, the company made location for No. 1 Mrs. Effie Willerton, located 1,000 feet west of the east line of section 1 and midway between the north and south lines of a 25-acre tract in the H.T.&B. Survey.

Two New Sands

The discovery of two new sands at the Port Barre field in St. Landry Parish and the Tepetate field in Acadia Parish together with the announcement of two more locations for the St. Martinsville field in St. Martin Parish were the features in Coastal Louisiana the past week.

On the west flank of the Port Barre field, St. Landry Parish, Pan-American Producing Co. No. 1 Haas and Hierch, cored oil sand from 4,867-88 feet, the total depth, and on a seven-minute drill stem test from 4,799-4,888 feet showed 2,261 feet of oil through a one-quarter inch choke, and casing has been cemented for a production test. Base of the Catahoula was picked at 4,000 feet and the top of the Heterostegina at 4,711 feet. Gravity of the oil tested 33.7. The well was drilled on farmed-out acreage held by the Gulf Refining Co. and it is the deepest producer in the field. Other sands are found from 3,100 to 3,600 feet. This is the first production to be developed by the company, a subsidiary of the Standard Oil Co. (Indiana), which entered into activities in the district within the past few months.

A shallow sand for the recently discovered Tepetate field, Acadia Parish, was opened for development by Continental Oil Co.'s No. 1 Marcantel, located northeast of the discovery well in section 29, which tested 5 thribbles of oil, 2 thribbles of oil and mud and 75 pounds of pressure on a

nine-minute drill stem test from 7,730-77 feet. The sand is approximately 600 feet above the discovery horizon found at 8,300 feet. The company's No. 1 Macabees, an outpost test situated about a mile north of production, is coring in lime and shale below 7,840 feet. To the south in section 34, No. 1 Klumpp, which was recompleted after showing salt water from 8,324-34 feet, was cemented back and completed through perforated casing from 8,320-30 feet for an initial production of 458 bbls. per day through various chokes.

St. Martinsville Tests

Northeast of Tide Water Oil Co. No. 1 Smedes, the discovery well of the St. Martinsville prospect, St. Martin Parish, Coastal Plains Oil Corp. has made locations for two tests. No. 1 E. D. Breaux is 235.5 feet from the west line and 201 feet from the north line of section 57-11s-6e, and No. 1 A. L. Domengeaux is situated 330 feet from the west line and 120.5 feet from the north and south lines of a 50-arpent tract in section 57.

Danciger Oil & Refining Co. No. 1 Holdsworth, situated in the southeast part of St. Tammany Parish several miles west of the Mississippi River in section 26-8s-14e, has attracted much attention to the area due to a strong odor of oil encountered in sand from 3,994-4,000 feet. It is one of a few tests drilled in this section of the state.

Magnolia Petroleum Co. No. 1 Broussard in Cameron Parish was plugged back from 9,368-78 feet and on a drill stem test made through perforated casing from 9,239-50 feet tested salt water and is being plugged back to a higher level. It was originally drilled to 9,501 feet and is testing five possible oil sands indicated on an electrical coring test. Location is in the northeast part of the parish in section 13-12-9w.

At the Dog Lake field, Terrebonne Parish, Texas Co. was scheduled to test its No. 18 State located on the north flank of the dome, after 7⅝-inch casing was cemented at 7,100 feet in oil sand, cored from 7,101-25 feet, the total depth. This is the deepest test drilled and the second to show for a producer, although numerous tests have been drilled. Location is in section 24-21s-16e.

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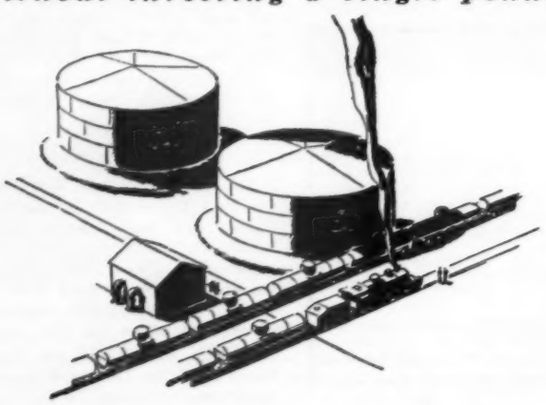

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Canadian Fields

Completions and Operations in Northwest and in Ontario

By VICTOR LAURISTON

CHATHAM, Ontario, Nov. 30.—On the Del Bonita structure in southern Alberta, Terminal Oil Co. No. 1, NE section 18-1-21w4, encountered an oil sand at 5,017 feet, apparently at the Ellis-Madison contact. It drilled 6 inches into the sand, getting a wet gas flow estimated around 1,000,000 feet a day. Later the owners report the well was showing 5,000,000 feet of gas. The gas indicates very heavy saturation, and is sweet and free from sulfur. The 6-inch casing is cemented in the Ellis at 4,895 feet. The Ellis is reported 200 feet thick, the bottom 35 feet showing naphtha indications. "Christmas tree" has been installed and the test is deepening into the sand.

The location is due south of Magrath, Alberta, and about 2 miles north of the Montana boundary, on acreage of Nordon Corp. Two earlier tests on the Twin River structure got good oil shows in the top of the Madison limestone.

The Alberta basin lies mainly in southern Alberta, the southern tip extending into northern Montana. In the latter area the Kevin-Sunburst, Cutbank, Pondera and Bannatyne fields have been developed. The southern structures in Alberta were discovered or localized by the Marland Oil Co., Prairie Oil & Gas Co. and Nordon Corp. Structural conditions in the Twin River and Del Bonita areas are heavily masked with glacial drift, so that diamond drilling was used to supplement the area geology. In the stream cuts the geology indicated favorable structures. Considerable geophysical work and detailed geology has localized the area more closely.

According to recent reports, the Del Bonita and Twin River structures lies in an ideal position in the Alberta basin just across the international line from the Montana fields, and are basinward folds on the gently dipping east flank of the basin, and calculated to receive the drainage from the geosyncline of the basin to the west. Due to recent tilting, the water table or oil-water content is an inclined rather than a horizontal plane, production contours projected on this inclined plane showing some 250 to 300 feet of closure on the critical or south end of the structure. It is argued the structure was formed and then the oil accumulated, and later the entire basin was tilted to the north. Since the slight tilting was comparatively recent, the capillary resistance to the flow of oil and water in the reservoir rocks was sufficient to hold the oil in place, and the oil is looked for over the north nose of these structures, on the old high rather than the new high. The Alberta Pacific Consolidated deep test at Spring Coulee had 90 feet of oil saturation in the Madison lime, though it was some 400 feet down from the top of the structure, over the north nose. Terminal No. 1 on the Del Bonita structure was located just over the north nose of the structure.

The geology indicates that the Del Bonita structure is a closed dome over oil-bearing formations. The structure is shown to be closed by surface geology and core drilling, and the adjacent drilling in the Cut Bank, Kevin-Sunburst and Twin River areas indicate the presence of oil-bearing formations. Indications are that the Madison lime is much thicker than in the Cut Bank field, with the upper 300 feet quite porous and no signs of serious erosion.

Turner Valley Deliveries

Total deliveries to the Calgary refineries from the Turner Valley field in October amounted to 75,185 bbls. compared with 76,953 bbls. in September. For the 10 months of 1935 the deliveries total 799,868 bbls. worth approximately $1,839,696. In addition considerable quantities of naphtha were marketed in the field or through smaller refineries, so that production of the field for the year should considerably exceed 1,000,000 bbls.

Turner Valley Drilling

In the North Turner Valley field, Model Oils No. 3, LSD 1, section 22-20-3w5, is more than 360 feet in the lime below 6,094 feet in a very hard formation. At 5,984 feet it had a flow of 1,000,000 feet of wet gas, but a production test indicated the main porous horizon had not been reached. It will be continued to about 6,400 feet, where larger production is looked for in the white lime. Farther east, Royalite Oil Co. No. 27, LSD 4, section 23-20-3w5, is in shale below 2,297 feet. South and west of the main North Turner Valley structure, Phillips Royalties No. 1, LSD 16, section 16-20-3w5, is standing at 2,370 feet.

In section 28-18-2w5, South Turner Valley, British Dominion Oil & Development Corp.'s No. 4, LSD 6, has encountered a second porous horizon in the lime at 6,231 feet and is deepening, with a little increase in gas. The previous flow from the upper lime was between 7,000,000 and 8,000,000 feet. Farther south, Renfrew Royalties No. 1, Morris & Goodfellow, LSD 3, same section, is in the top of the lime at 6,020 feet and waiting for casing.

In section 21-18-2w5, Union-Freehold Oil Corp. No. 1, LSD 8, is sidetracking below 5,520 feet and getting close to old bottom at 5,610 feet. The old hole showed the lime at 5,595 feet. Farther south, Highwood-Sarcee Oils No. 2, LSD 1, same section, has had considerable trouble

with water in the upper horizons and is running casing to 700 feet.

Tests in the Foothills

On the Aldersyde structure east of Turner Valley, Ranchmen's Gas & Oil Co.'s No. 1, LSD 16, section 13-20-28w4, is running tools to deepen from 6,530 feet preparatory to a production test of the lower sand. Recovery by drips from the wet gas flow showed a paraffin base crude ranging from water white to straw color according to back pressure. It is apparently free from sulfur.

In the Forest Reserve area west of Olds, Hunter Valley Oil Co. No. 1 McLaren, LSD 12, section 13-31-10w5, is below 5,260 feet. On the Moose dome west of Calgary, Moose Oils No. 2, LSD 8, section 29-22-6w5, is at 252 feet, waiting for cement which has been held up by drifted trails.

On the Highwood-Sinclair structure south of Turner Valley, Maple Leaf Royalties No. 1 Banner, LSD 6, section 34-17-3w5, is below 2,600 feet. East of Turner Valley, McLeod Oil Co. No. 1 New Valley, LSD 4, section 6-21-2w5, on the New Valley structure is below 3,350 feet and carrying 10-inch casing.

On the Watson structure north and west of Lundbreck, Mar Jon Oil Co. No. 3, LSD 3, section 4-10-2w5, is deepening after cementing against caving at 3,504 feet. It got a flow of about 2,000,000 feet of gas in the first productive sand of the Blairmore formation between 3,565 and 3,570 feet.

On the Pincher Creek structure, Weymarn Petroleum No. 2, LSD 5, section 7-6-1w5, rotary test, is logging satisfactorily below 4,040 feet, with a little gas.

In the old Oil City field, Waterton Lakes Park, Oil City Royalties No. 1, section 30-1-30w4, is below 2,302 feet.

Border Fields

On the Comrey structure, southeastern Alberta, McDougall-McLeod Oil Co. No. 1, is resuming after running 10-inch casing to 2,485 feet.

In the Cardston area, Franco Oils No. 1, LSD 6, section 5-3-25w4, is preparing to resume from 2,700 feet.

British Columbia

In the Okanagan district of British Columbia, Okanagan Oil & Gas Co. No. 1, E half section 2-6, Osoyoos Survey, near Kelowna, has resumed, work being carried on by a local syndicate headed by J. E. Reekie and G. D. Herbert and representing a group of the original shareholders who are financing further work. At 2,720 feet the hole was full of water with traces of oil and gas. Shut-off has been made and the tools are 12 feet below the cement at 2,732 feet. V. J. Freeman is in charge of operations.

Saskatchewan Operations

In the Riverhurst district in Saskatchewan, Riverhurst Gas & Oil Co. No. 4, LSD 4, section 33-22-7w3, is shut down for the winter in the Lea Park formation at 460 feet. An 8-inch hole is being drilled, F. A. Stebbins of Saskatoon handling the work. A gas show was struck at 360 feet. Three earlier wells drilled to 520 feet encountered a gas sand between the Lea Park and Alberta formations with around 125,000 feet of gas a day. This gas is being used for drilling and camp fuel for the deep test.

On the Gem Dome, southwestern Saskatchewan, Gem Dome Oils No. 1, LSD 6, section 4-10-29w3, is rigged.

In the Lloydminster field, western Saskatchewan, Colony Oil & Gas Co. No. 3 is below 1,000 feet.

In Manitoba, the Waywasecapow Oil Syndicate has been formed by local and Winnipeg interests to test an oil prospect in the vicinity of Birdtail. The syndicate, with J. L. Mander as manager, has taken over some 16,160 acres staked in the Birdtail Valley area known as location No. 1 and 3,840 acres known as location No. 2. It also holds all interest in applications with the federal and provincial governments for a lease on additional acreage on a one-eighth royalty basis, including some 2,561 acres already leased for a 30-year term. It is planned to organize a company to handle the development. The first oil show was located on the T. R. White property at Birdtail, in section 21-20-25w1. The potential structure extends about 1½ miles east and west from this location, and 17 miles north and 4 miles south. Drilling equipment is expected this month when a test will be spudded. Considerable acreage has been staked outside the area indicated.

Ontario Fields

In the Dover field, Kent County, Ontario, Massey Oil & Gas Syndicate No. 1, William Cook farm, S half E half Lot 12, Front Concession, Dover East Township, got the Trenton limestone at 2,904 feet and is deepening into the lime after setting casing. This test is some miles east of the proven field, but though the formations usually rise toward the east the Trenton at this point is practically as low as in the producing area farther west.

In the main field, Ajax Oil & Gas Co. No. 8, Dover East Township, is cleaning and plugging off water. E. P. Rowe No. 1, Vital Duphette farm, Lot 2, Concession 4, is on the pump. South of the River Thames, E. P. Rowe No. 1, Bruette farm, Lot 5, Front Concession, Raleigh Township, is reported making around 25 bbls. a day from the Trenton limestone. No. 2 has shifted location from 1,000 feet east to about 500 feet due south of No. 1. D. G. Lauer has the contract and is moving equipment.

In the west end of the Dover field, Central Pipe Line Co. No. 3, Eli Jubenville farm, is in the Trenton below 3,290 feet with about 30,000 feet a day and looks like a dry hole. Central Pipe Line Co. No. 3 has been located farther west on the Jubenville farm and is moving equipment.

In Chatham Township, Kent County, Union Gas Co. No. 2 is rigging in Lot 5, Concession 13, about 1,500 feet south of No. 1, which was abandoned at 2,015 feet. No. 1 got a couple of fair shows of oil in the Salina between 1,620 and 1,740 feet.

In the Eden field, Elgin County, Central Pipe Line Co. No. 2, Williams farm, is below 800 feet. C. A. Simpson and associates No. 4, Bayham Township, is below 500 feet. Stover & Rawlings of Chatham are moving an outfit into the Eden field to drill a series of tests for the Olga Oil & Gas Co. of Toronto.

To Avoid Tax Evasion

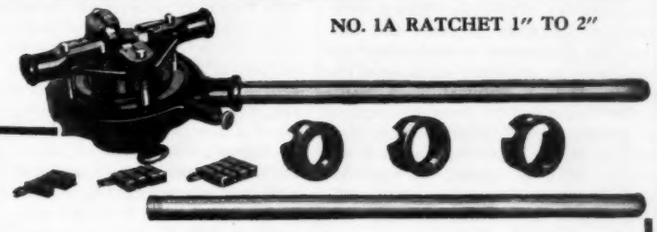
NEW YORK, Dec. 2.—The Northeastern States Tax Conference, composed of representatives of the states of New York, Massachusetts, Rhode Island, Connecticut, New Jersey and other states of this section, met here to devise means to reduce evasions of gasoline taxes. It was decided to recommend to the tax collection agencies of each state that all licensed distributors be permitted to buy their gasoline tax-free for movement into other states, but to require them to send notices to the tax commission of the state of destination within 24 hours, setting forth all details of the ultimate distribution of the gasoline. A plan sponsored by some oil companies to force the shipper to pay the tax in the state where it is first received with refunds to be given in case proof was presented of reshipment to another state failed to receive the approval of the commission.

Royalite No. 1

CALGARY, Alberta, Nov. 30.—A recent paper by S. G. Coultis, field superintendent for the Royalite Oil Co., read before the Calgary branch of the Engineering Institute of Canada disclosed that the discovery well in the Turner Valley field, Royalite Oil Co. No. 1, is still producing.

Known in earlier days as Dingman No. 1, this pioneer well, drilled by the Calgary Petroleum Products Co. in LSD 14, section 6-20-2w5, ultimately got gas in 15 different horizons between 407 and 3,883 feet. A show of light crude at 1,557 feet in October, 1913, attracted attention to the field and a larger show at 2,718 feet in May, 1914, started the first Calgary boom with its spectacular leasing, drilling and stock-promotion activities. Later, Dingman No. 1 was deepened to 3,883 feet, but was never carried to the Madison. After the merger of the Calgary Petroleum Products in the Royalite company, the discovery well, known as Royalite No. 1, was kept as a producer from the upper sands and Royalite No. 4 was drilled and developed naphtha production in the Madison lime.

No. 4 was abandoned last year but No. 1 is still producing gas to fire boilers. Mr. Coultis stated that due to conservation measures rock pressures had actually increased in some Turner Valley wells. No evidence of "dry ice" or carbon dioxide had been met.



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California Field Report

By
L. P. STOCKMAN

KETTLEMAN NORTH DEEP TEST APPROACHES CRITICAL STAGE

LOS ANGELES, Calif., Dec. 2.—Barring development of mechanical trouble at the last minute, the Union Oil Co. should be in a position to definitely learn the deep zone possibilities of the Kettleman North Dome field within the next fortnight, and because of its potentiality the company's No. 1 Lillis-Welsh is without doubt the most important drilling project under way in California.

A production test scheduled to be made about Christmas, No. 1 Lillis-Welsh is looking promising at 10,700 feet as the ditch has shown rainbows at frequent intervals and during the past week considerable gas has been in evidence each time the drilling fluid is changed.

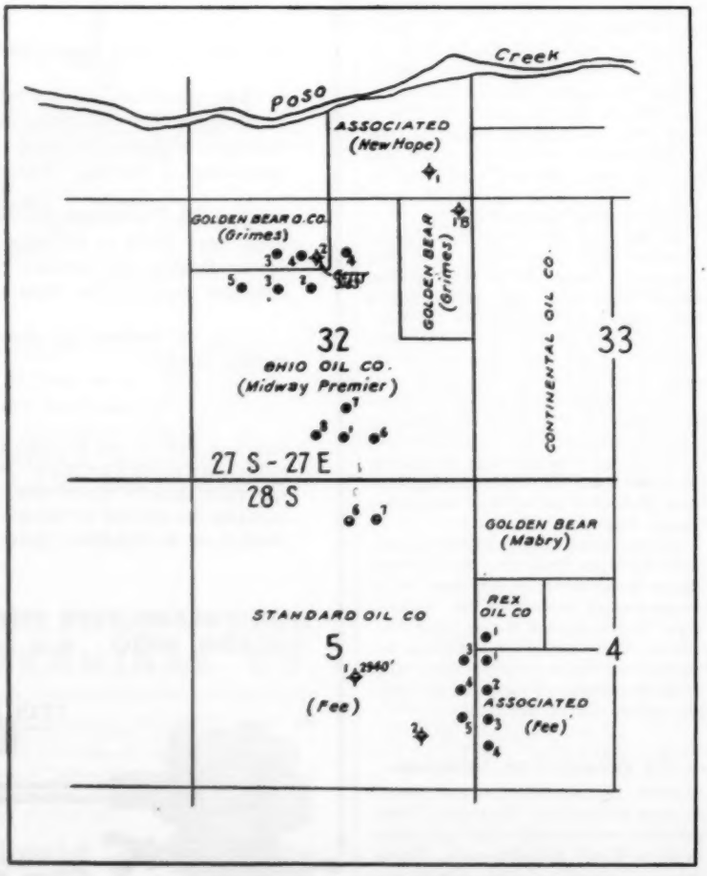
The Union Oil Co. field department is drilling with 74-pound slough mud and it is the intention to land another string of casing at approximately 10,800 feet unless the condition of the hole necessitates a last-minute revision. The company has been coring at 50-foot intervals, but will core solid after the next string of casing has been landed and cemented. Actual completion depth depends on the status of the hole and the outlook from a production standpoint. The last string of casing landed in this well consisted of 9,081 feet of 8⅝-inch and consequently the diameter of the hole is large enough to permit the use of relatively large pipe if desired. A couple of tight places have developed in the hole, but the company has eliminated them by persistent reaming and consequently no difficulty is anticipated in running in the next string of casing. The depth at the present time is within 244 feet of that reached by Ed McAdams, who lost the original hole because of mechanical trouble at 10,944 feet.

About midway between No. 1 Lillis-Welsh and a producing well in section 19-21-17, the Kettleman North Dome Association is rotating ahead in No. 54-24-H in a barren gray sand at 8,500 feet. Kenda will carry this well down for a deep conclusive test if commercial production is not secured in the Temblor or in the event the Union Oil Co. successfully completes No. 1 Lillis-Welsh. The Union's drilling project is of extreme importance because if commercial production is developed it will extend the proven limits of the field almost a mile west and necessitate a map revision, in the red or inner line which encloses proved acreage. It may also change the present status of acreage enclosed by the outer blue line in as much as deeper drilling between the blue and the red lines may result in the development of production and lead to a reclassification of acreage.

North Belridge

The Belridge Oil Co., which has completed two excellent wells in the Wagonwheel zone in the North Belridge field of Kern County within the past 30 days, has just started rig construction for two new projected deep zone completions. The company has derrick up for No. 18-35 in section 35-27-20 and will complete the rig for No. 6-1 in section 1-28-20 within the next week or 10 days. Union Oil Co. expects to pick up the top of the Wagonwheel zone in No. 7 Gibson a little below 8,400 feet and if the well runs true to form it should be completed later this month. The Union is completing its wells in this field under its own production restrictions, consequently the recorded initial daily production does not represent the wells' maximum potential. The Union's last completion, finished a few weeks ago, was brought in flowing 1,680 bbls. of clean 42.4 gravity oil per day from 8,360 feet, although it was capable of producing in excess of 5,000 bbls. per day. The same procedure will be followed if No. 7 Gibson results in commercial production.

Continental Oil Co. is scheduled to add another new well it its list of producers on the Result lease in the North Belridge field early in 1936, and the Standard Oil Co. should completed No. 3 McPhail either late in December or early in January. The latter's No. 4 McPhail in section 36-27-20 will probably be spudded in within the next 15 days. In the South Belridge field of Kern County, General Petroleum may resume work early in 1936 on No. 1 Berry either with a view of abandoning the hole or attempting to recover the fish and proceed with efforts to develop production. The Standard is still battling with a water problem in No. 1 United, a projected deep test which the company is drilling in the Lost Hills field of Kern County in section 2-26-20. The 9⅝-inch water spring was recently recemented at 5,766 feet for the sixth time and the crew will probably reenter the hole to make another test of the shutoff within the next few days. Practically every well drilled in the Lost Hills field up to the present time has encountered an abnormally high head of water, and for this reason most of the deep tests have been unsatisfactory. The Standard has encountered one of these water zones. The Standard is particularly anxious to exclude the water zone at 5,766 feet because No. 1 United looks fairly promising, as some showings of undetermined importance have been logged in the bottom of the hole at 5,824 feet. It is obvious that the completion of this well as a commercial producer would prove of major importance and pave the way for aggressive drilling in the Lost Hills field.



Premier area, Kern County, California

In the Edison Field

Three new wells were put on production in the Edison field of Kern County, and two more, Rogers & Osborne No. 1 Navy in section 19-30-30 and Shell Oil Co. No. 4 Clare in section 14-30-29, should be tanking oil within the next few days. The A. T. Jergins Trust completed No. 5 fee, pumping 290 bbls. of 17.1 gravity oil per day from 1,555 feet and followed up this success by finishing No. 8 fee in section 13-30-29, pumping 746 bbls. of exceptionally clean 23.4 gravity oil per day from 1,291 feet. These two wells clearly indicate an outstanding characteristic of the Edison field in that it yields both a light and heavy gravity crude oil. The heavier grade of crude oil is produced from the Chanac, while the light refinable crude oil is produced from the Temblor. This company has started an aggressive development program in the Edison field and if the rigs now in course of construction are utilized, the company will have five strings of tools in operation within the next two or three weeks. In addition to No. 7-A McCowan, which has just been spudded in, the company has derricks going up for No. 13 fee, No. 8-A McCowan, No. 6-B McCowan and No. 2 Hersey. The General Petroleum No. 1 Speed, section 10-30-29, proved to be a rather unsatisfactory completion when put on the beam at 1,895 feet as it pumped only 34 bbls. of 13.8 gravity oil initially. The company is preparing to spud in No. 5 Knapp within the next few days and with two additional derricks standing for Nos. 6 and 7 on the same property the company may also start work on one of these projects.

Ohio Oil Co. is expected to complete its first well in the Mountain View field of Kern County within the next 15 days, as its No. 1 Derby in section 33-30-29 flowed for 10 minutes at the rate of 125 bbls. per hour on a preliminary production test conducted during the early part of the current week. This well was carried down to 5,999 feet but failed to result in commercial production and the company suspended drilling operations. After lying idle for a month or two the Ohio redrilled it to 5,287 feet. The company has staked location for No. 3 Derby and this well will be started subsequent to completion of No. 1. Shell Oil Co. has

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picked up the pay in No. 3 on Porter lease No. 2 and the 8⅝-inch water string has been landed and cemented at 5,373 feet. No. 6 on the same lease is scheduled to be spudded in December 10 and consequently should be on production before the close of February. Hancock Oil Co. should have No. 8 Miller tanking oil within the next week or 10 days, and this potential producer is expected to be followed into production by several other wells now nearing completion. New wells scheduled to be completed within the next fortnight include No. 8 Hood of the Mohawk Oil Co., No. 2 National of the Wood-Callahan Oil Co. and No. 2 Mullaney and No. 7 Ranton of the Standard Oil Co. This group will be followed by several other potential producers which are due to top the pay in the immediate future.

Montebello

The Texas Co. No. 13 Baldwin, northwest of Universal No. 2 Nutt in the Montebello extension registered an initial daily production of 1,106 bbls. of 39.9 gravity oil from 5,831 feet. It was finished with an 11¾-inch water string landed and cemented at 5,363 feet, and is producing 1,480,000 feet of gas along with the crude oil. Universal Consolidated, which has finished four wells in the deep sand in this district, is building rig for No. 3 Nutt. Signal Oil Co. No. 1 Lapworth in the Woodward section of the extension is pumping fresh water with only a small amount of oil from 3,112 feet. An effective water shutoff was made in this well with 10¾-inch casing landed and cemented at 3,088 feet. Woodward Oil Co.'s first completion in the extreme eastern end of the Montebello extension is still pumping 88 bbls. per day although it too shows a rather high water content. Woodward Oil Co. No. 2 Lapworth is rotating ahead at 1,498 feet and scheduled for completion at approximately 3,100 feet. The Oil & Gas Associates have suspended drilling on No. 1 Community at 3,194 feet after a formation test showed the zone to be wet at 3,080 feet.

In the Dominguez field of Los Angeles Basin Union Oil Co. No. 41 Callender was brought in flowing 340 bbls. of 30.2 gravity oil per day from 4,375 feet. The Union is running three strings of tools in this field at the present time and has two potential producers nearing completion on the Callender and Hellman leases. Standard Oil Co. completed No. 124 Murphy-Coyote, in the West Coyote field, early this week after carrying the hole down to 5,870 feet and landing an 8⅝-inch water string at 5,030 feet, the company failed to secure a natural flow upon completion of this new well and it was consequently brought in on a compressor doing 430 bbls. of 31.3 gravity oil cutting 8 per cent. The Standard has two other potential producers under way in this field and is rigging up No. 61 Emery for early work. Two wells were given production tests in the Long Beach field this week but neither showed large production. The Boswell Petroleum Corp. No. 1 Crest bottomed at 4,618 feet and finished with a 5¾-inch liner carrying 744 feet of perforated was brought in pumping 118 bbls. of 23.8 gravity oil that showed a water content of 4 per cent. The Manhattan Oil Co. put its No. 1 Signal on a production test after plugging back the hole from 3,730 feet to 3,590 feet but this plugging job did not accomplish the desired result as the initial daily production, 98 bbls. of 25.7 gravity oil showed a cut of 42 per cent.

Fruitvale

The Western Gulf, discoverer of the Fruitvale field of Kern County, completed No. 4 Sweitzer in that district, pumping 130 bbls. of 22.5 gravity oil per day from 3,547 feet after the hole had been finished with a 6⅝-inch liner including 56 feet of perforated. No. 1 Burlock in section 21-29-27 is giving the Gulf's field department something to think about as it developed a water problem that has not been overcome by plugging back the hole from 4,111 feet to 3,970 feet. The next completion of the Western Gulf in the Fruitvale field should be No. 5 Price & Stewart as a string of 8⅝-inch casing was run in and cemented as a water string a day or two ago. The S. & G. Oil Co. No. 1 Nichol in section 26-29-27 came

TANKER SHIPMENTS FROM LOS ANGELES TO DOMESTIC AND FOREIGN PORTS

	November 17		November 10			
	Total this week	Daily average	Total last week	Daily average	This year to date	Same time last year
Intercoastal-domestic:						
Fuel oil	.....	.....	.....	.....	.....	11,540,253
Diesel and gas oil	75,758	10,823	.....	.....	639,387	1,349,883
Gasoline	200,538	28,648	.....	.....	6,554,538	7,233,026
Kerosene	6,528	933	.....	.....	830,445	977,579
Asphalt	.....	.....	.....	.....	.....	70,019
Other finished oil	.....	.....	.....	.....	.....	54,778
Foreign exports:						
Crude oil	564,668	80,667	.....	.....	11,598,274	7,260,925
Fuel oil	182,372	26,053	206,413	29,488	10,865,855	11,800,204
Diesel and gas oil	.....	.....	207,101	29,586	4,080,566	3,586,701
Gasoline	339,659	48,523	96,564	13,795	6,182,491	4,240,119
Kerosene	63,369	9,053	14,130	2,019	1,137,169	1,589,518
Other finished oil	.....	.....	.....	.....	.....	37,955
Other unfinished oil	.....	.....	.....	.....	99,847	230,745
Coastwise-domestic:						
Crude oil	161,173	23,025	115,101	16,443	6,144,005	7,118,427
Fuel oil	146,760	20,966	128,347	18,335	8,324,943	8,523,807
Diesel and gas oil	20,804	2,972	.....	.....	1,070,832	667,929
Gasoline	274,292	39,185	267,144	38,163	10,101,662	11,938,810
Kerosene	7,051	1,007	.....	.....	166,209	137,963

TANKER SHIPMENTS FROM SAN FRANCISCO TO DOMESTIC AND FOREIGN PORTS

Intercoastal-domestic:						
Fuel oil	.....	.....	.....	.....	.....	110,650
Diesel and gas oil	.....	.....	.....	.....	158,152	599,613
Gasoline	.....	.....	.....	.....	.....	365,283
Kerosene	.....	.....	.....	.....	149,715	276,596
Asphalt	.....	.....	.....	.....	484,597	.....
Lubricants	2,995	428	.....	.....	60,320	46,693
Foreign exports:						
Crude oil	164,892	23,556	74,798	10,685	2,376,008	1,761,594
Fuel oil	16,806	2,401	28,430	4,061	2,083,892	1,919,023
Diesel and gas oil	1,628	233	.....	.....	916,307	1,164,102
Gasoline	.....	.....	64,871	9,553	2,563,189	2,695,909
Kerosene	7,805	1,115	.....	.....	635,202	1,008,223
Lubricants	.....	.....	.....	.....	173,507	164,257
Other finished oil	.....	.....	.....	.....	.....	2,760
Other unfinished oil	.....	.....	.....	.....	.....	5,750
Coastwise-domestic:						
Fuel oil	209,590	29,941	304,612	43,516	6,169,885	4,816,636
Diesel and gas oil	.....	.....	39,362	5,623	215,294	119,036
Gasoline	55,379	7,911	205,667	29,381	3,899,380	4,962,391
Kerosene	7,368	1,053	3,960	566	88,113	82,434

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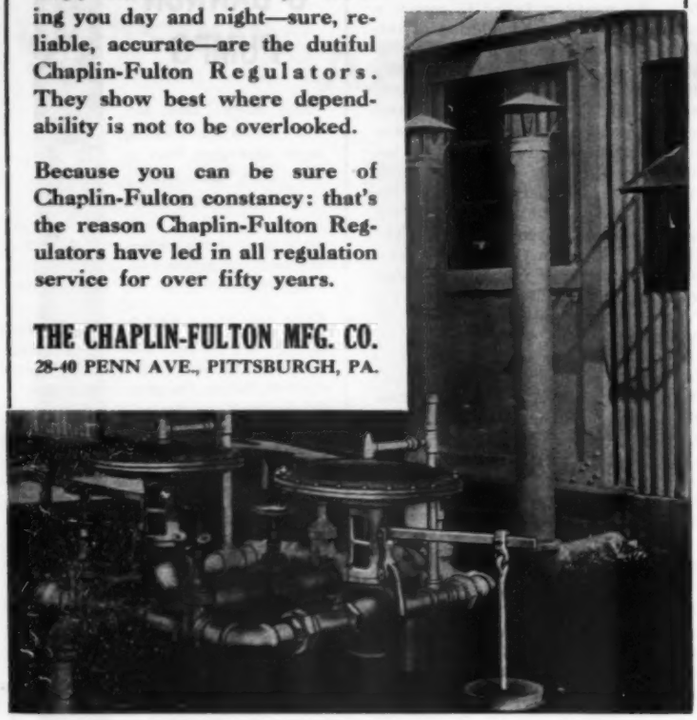

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in flowing water with a trace of oil last week and the company has undertaken some remedial work in an effort to effect a satisfactory shutoff. This new well, which will extend the limits of the field if finished as a commercial producer, was bottomed at 3,475 feet and finished with a 5-inch liner carrying 100 feet of perforations and cemented through perforations at 3,375 feet. Pepper & Kaar have started rig construction for a new well to be drilled on the Nichols property in section 26-29-27 but actual drilling may be delayed pending the outcome of the S. & G. Oil Co. No. 1 Nichol in the same area.

Out on the Kern River front, the Chanslor-Canfield Midway Oil Co. has completed another new well in section 23-28-27 and will probably have another new producer tanking oil within another two weeks. Due to the fact that the formation in this area is soft and therefore conducive to fast drilling many of the wells drilled out on the west front are drilled from spud to completion in approximately three weeks. The Chanslor-Canfield Midway Oil Co.'s new producer in this field was No. 52 fee which was brought in pumping 241 bbls. of 15.4 gravity oil per day from 2,057 feet after the hole had been finished with an 8⅝-inch liner carrying 297 feet of perforated. National Oil Co., which finished a good producing well on the Standard property in section 11-28-27 a week or so ago, has already spudded in No. 3 and has a new derrick constructed for No. 4, which will be spudded in immediately upon completion of No. 3. The Texas Co. has topped the pay in No. 17 Lehman in this district and this potential producer should be passed for production within the next 10 days. The company has started rig construction for No. 16 on the same property. The Standard Oil Co. will have No. 6 fee in section 5-28-27 tanking oil within the next 48 hours and will move the crew from this well to No. 7 fee, the rig for which was erected some time ago. The American Naphtha Oil Co., which acquired the old Arizona Oil Co. property a few months ago, is making preparations to rejuvenate most of the old wells on the property that have been shut in for several years and drill a number of new holes in order to determine the productivity of a possibly new sand found in No. 64 which has been completed pumping 70 bbls. of 15.1 gravity oil per day from 1,105 feet after the hole had been plugged back from 1,365 feet. As is the case with other wells in the older section of the Kern River field, the American Naphtha Oil Co. No. 64 is pumping considerable water along with the oil. H. E. Wallace, vice president of the company and in charge of operations, is of the opinion that the possible new sand found may prove to be of greater importance than is generally believed especially if the company succeeds in excluding most of the water from the producing formation.

Mount Poso

Cliff Baker completed another well on the Glide lease in the Mount Poso field of Kern County, pumping 126 bbls. of relatively clean 15.4 gravity oil per day from 1,665 feet after the hole had been plugged back from 1,890 feet. Within the next week or 10 days, General Petroleum should have No. 4 Glide on production and it appears probable also that the O. F. W. Oil Co. No. 1 Poso in section 27-26-28 and Roberts & Adams No. 1 Poso in section 35-27-28 may also be completed along about the same time. Santa Carla Oil Co. has spudded No. 1 Poso in section 7-26-28 and the bit should reach the 1,000-foot level within the next day or two. This project is located 1,650 feet north and 1,650 feet east of SW cor. section 7-26-28. The Texas Co., Union Oil Co. and Archie Mayes are making preparations to start new wells in this field and at least one of them will spud in within the next week. Standard Oil Co. has not yet found anything of importance in its No. 1 M. & T., an outpost in the Round Mountain field, but drilling operations are still under way with the bit nearing the 3,700-foot level. In the Midway-Sunset field of Kern County, the Chanslor-Canfield Midway Oil Co. has recompleted No. 4-21 in section 21-32-23 after deepening from 868 feet to 1,205 feet from which depth it was returned to production pumping 88 bbls. of 14.6 gravity oil per day. This company is making preparations to finish No. 2 W. P. in section 27-32-23 as the pay was picked up at 1,571 feet and the water string run in and landed a few days ago. Porter & Gibson have built a new derrick over an old abandoned hole in section 6-11-23 and are rigging up rotary drilling equipment preparatory to resuming work at 3,496 feet. This test was originally drilled to the depth mentioned by the Michigan Oil Co. and abandoned because of the failure to encounter sufficient thickness of sand to develop commercial production.

The Western Gulf is expected to start another test on the substantial block of acreage it has in the area north of the Coalinga field of Fresno County before the close of 1935. The Gulf's first test in this district produced a limited amount of light gravity oil but failed to result in commercial production due to water and mechanical trouble. The company's second test, located east of No. 1, did not show a thing from top to bottom and was accordingly abandoned. The third test to be drilled in this area has been tentatively located north and west of the first duster. Associated Oil Co. was considering a deal with the Western Gulf whereby it would drill the next test and participate with the Gulf in the event that production should be developed. This wildcat acreage has production possibilities and further work is justified notwithstanding that over $1,000,000 has been expended up to date in lease rentals and the drilling of the two deep dry holes.

Alberta Highway Project

CALGARY, Alberta, Nov. 30.—Speaking here recently, W. A. Fallow, minister of public works for Alberta, announced an agreement was being negotiated for construction of a 200-mile highway between McMurray and Fitzgerald in northern Alberta by a syndicate interested in the development of the tar sand area in return for an exclusive franchise for freight and passenger transportation for hire. It will be free to ordinary passenger cars. The highway is expected to facilitate commercial development of the tar sand deposits.

L. P. Garrett, vice president of the Gulf Production Company, Houston, Tex., was in Fort Worth, Tex., over the week-end.

Eastern Field Report

THREE EASTERN DEEP TESTS ARE VERY NEAR COMPLETION

By STAFF CORRESPONDENT

PITTSBURGH, Pa., Dec. 2.—The Pennsylvania Grade fields continue interesting with a fair number of completions each week and deeper drilling in all divisions commanding attention. No deep sand wells were completed during the week, but three are nearing the sand. During the past week 27 operations resulted in 6 dry holes, 14 gas wells and 7 producers with an initial daily production of 207 bbls. There were two fair completions in Southeast Ohio.

SOUTHEAST OHIO

The deep test of Brooks J. Johnston and others on the Clyde Smith farm in section 21, Brush Creek Township, Jefferson County, Ohio, proved dry at a total depth of 4,880 feet. The top of the Corniferous lime was at 4,524 feet and the lime extended to the bottom with no signs of the Oriskany sand, which had been expected, showing. Drilling was then suspended and it will not be resumed to the Clinton sand. It is not believed that the two tests, the other being on the Nila McIntyre farm in Madison Township, Columbiana County, will stop additional tests in this section.

The best producer of the week was in Hocking County, where the Preston Oil Co. completed No. 1,590 Sunday Creek Coal Co. in the SE quarter section 6, Ward Township, and about 300 feet south and 500 feet west of the No. 1,583 on this farm. It was drilled into the Clinton sand at a depth of 3,492 feet and produced 35 bbls. the first day, which was increased to 175 bbls. the first day after it was shot.

The largest gas well of the week was a test in Perry County. Mid-East Gas Co. completed No. 1 on the Beacham and Wilson farm in the NW quarter of section 13, Reading Township, in the Clinton sand at a depth of 3,175 feet. It gauges 3,000,000 feet a day.

In Belmont County, another producer extended the local pool in Richland Township. In the NE quarter of section 26, the Richland Syndicate completed a second test on the Andy Semunchik farm in the Berea sand at a depth of 1,882 feet. It produced 18 bbls. the first day, naturally.

In Fairfield County, Patten & Bishop completed a test on the J. H. Shaffner farm in the SE quarter of section 14, Walnut Township, in the 400-Foot lime. The test made a fairly good showing of oil while drilling in, but salt water intruded and the well will probably be plugged.

In Holmes County, S. J. Bell and others completed a test on the William Craig farm, Lot 9, Mechanic Township, in the Berea sand at a depth of 812 feet. It is a light gas well gauging 45,000 feet a day with no oil showing.

In Knox County, the Upham Gas Co. completed a test on the L. Smith farm in the NE quarter of section 9, Union Township, in the Clinton sand at a depth of 2,885 feet. It is a gas well gauging about 500,000 feet a day.

In Licking County, Alexandria Bank and others completed a second test on the Jane G. Hirst farm, Lot 17, Franklin Township, in the Berea sand at a depth of 690 feet. It is showing for a 1-bbl. pumper.

In Washington County, Reno Oil Co. completed a test on the S. P. Fry farm in section 34, Grandview Township in the Injun sand at a depth of 1,456 feet. It is producing 5 bbls. a day after the shot and also has a volume of about 75,000 feet of gas. In Duck Creek Valley, Lot 104, Fearing Township, Laura K. Lorenz and others completed No. 2 on the Katherine Lorenz farm in the Macksburg stray sand at 820 feet. It made 1 bbl. the first day, naturally, which was not helped by a shot. In Aurelius Township, on the Macksburg Ridge in section 30, Elmer Wickens completed No. 18 on the Henry Wickens farm through the Salt sand, 1,230 feet, and it was a dry hole.

SOUTHWEST PENNSYLVANIA

Two gas wells were completed in Southwest Pennsylvania and also two tests proved dry. In Richhill Township, Greene County, David Braddock and others completed a very fair gas well in No. 8 on the Newton Braddock farm. The total depth was 2,444 feet with the Fifty-Foot sand showing at 2,425 feet and gas at 2,435 feet. The volume is 2,500,000 feet a day.

In Beaver County, J. L. Abrams completed a test on the Prosnick farm in Big Beaver Township in the Gas sand and has a gas well with a volume of 225,000 feet a day. An old Berea sand well was then drilled down but the Gas sand in it proved dry. The second test was about one-half mile distant. This is in well-delineated territory.

In Morris Township, Greene County, the test of the Carnegie Natural Gas Co. which it was hoped would extend the Nineveh Thirty-Foot pool prove dry. It was drilled on the Lucinda Hunt farm and the total depth was 3,297 feet.

In Amwell Township, Washington County, Moore-Orrill & Co. drilled the test on the C. E. Hackney farm to a total depth of 2,448 feet and it was a dry hole. In this township New Oil & Gas Co. completed a rig for a test on the George Thomas farm, and is drilling a test on the B. A. Bonham farm at a depth of 1,460 feet. Carnegie Natural Gas Co. reached a depth of 2,925 feet on the C. W. Dunn farm. The top of the Fourth sand was at 2,902 feet.

In West Findley Township the Natural Gas Co. of West Virginia is rigging up for a test on the J. W. Earnest farm. In East Findley Township, Parkinson & Dague have rigged up the test on the Chris Ealy farm.

In South Franklin Township, Washington County, William Bungard & Co. are building a rig for a test on the Clyde Hineman farm. Carnegie Natural Gas Co. is drilling the John Dodd test at 2,020 feet. The Big Injun sand was at 1,793 feet. H. G. Whitfield is drilling at 430 feet in the test on the Judson Iams farm. E. H. and J. B. Tague have reached 1,635 feet in deepening No. 1 on the Hiram McClain farm.

In Morris Township, Greene County, the Penn Ohio Oil & Gas Co. has completed a rig on the Frank Toland farm. Myers, Hoskinson and others have resumed deepening the test on the Hunt farm and have reached 2,460 feet. The Gantz sand was at 2,345-2,362 feet and the top of the Fifty-Foot sand 2,445 feet.

In Springhill Township, Greene County, James H. Null, agent, is moving in tools to start No. 3 on the David Null farm. In Gilmore Township, J. I. Eddy & Co. have reached 1,400 feet in the No. 3 on the Charles Fordyce farm. S. B. Clovis and others are down 1,510 feet in a test on the Charles B. Fordyce farm.

In Dunkard Township, Greene County, Fred Garrison has resumed drilling the test on the Stoneking farm and reached 450 feet. In Richhill Township, Lewis & Co. are drilling at 1,025 feet in the test on the Samuel Chess farm and shut down for casing. A new test is starting. Burleigh Wright has made a location for a test on the D. C. Yoders farm.

Deep Tests

The Oriskany sand test of John Galey and others on the William Graham farm in South Beaver Township, Beaver County, is still gassing in spite of attempts to kill it. The Haliburton company has been retained to cement off the water in the bottom of the sand or 4,550-51 feet. The hole has been recased and water is being pumped to kill the gas, but so far the gas has the upper hand and is able to expel the water. As this is said to be the first attempt in the East to cement off water in an Oriskany gas well, it is being viewed with interest. If successful the casing will be cemented about 20 feet above the Oriskany sand.

In South Shenango Township, Crawford County, the Carnegie Natural Gas Co. has reached a depth of 3,865 feet in the deep test on the Gertrude Scott farm. The Newburg sand is expected within a few feet.

In South Union Township, Fayette County, the deep test of William Snee and others on the Summit Hotel property on Chestnut Ridge is drilling below 4,800 feet and in a gray shale. The Allegheny Gas Co. is now in charge of the drilling.

WEST VIRGINIA

Two small producers were completed in West Virginia. In Hancock County the R. J. Braden Co. completed No. 21 on the Hewitt heirs farm on the Ohio River in Grant district in the Berea sand at a depth of 1,012 feet. It is showing for 3 bbls. a day but may be used for an air repressuring inlet.

In Ritchie County the test of Jackson & Garretson on the W. B. Cunningham lease in Murphy district is showing for 4 bbls. a day in the Maxon sand at a depth of 1,960 feet. This is in very short-lived territory and the test is being shut down a while before completing.

Gas Wells

In Cabell County the Toms Creek Gas Co. completed a test on the C. W. Meelingh farm, in McComas district, at a total depth of 3,765 feet. Big lime was at 1,730-1,560 feet, Keener sand at 1,890-1,910 feet, Big Injun sand at 1,967-2,060 feet, Berea sand at 2,512-2,521 feet, Brown shale at 2,852-3,705 feet, with about 149,200 feet of gas showing at 3,345-3,705 feet.

In Calhoun County the Simmons Gas Co. completed a very fair well in the No. 3 on the Sylvester Brannon farm in Lee district. The total depth was 2,138 feet, the top of the Big Injun sand at 2,128 feet with gas showing at 2,134 feet. The volume is 2,325,000 feet a day.

In Hancock County, George W. Dawson completed a test on the Onnie Geer farm on Tomlinson Run in Grant district in the Berea sand at a depth of 1,054 feet. It is a light gas well.

In Pleasants County the All-in-One Producing & Refining Co. drilled a test on the Fracker and Jackson lease in Grant district on the anticline in the Shallow sand to 105 feet but it was dry.

In Ritchie County, the McDougal Oil Co. completed a second test on the E. C. McDougal farm in Clay district in the Salt and Big Injun sand at a total depth of 1,834 feet. It is a gas well gauging 160,000 feet a day.

In Roane County the McKown Gas Co. completed a test on the Dillon McKown farm in Spencer district in the Injun sand at a depth of 2,150 feet. The Big Injun sand was at 2,031-77 feet with about 31,000 feet of gas showing at 2,036 feet and again at 2,069 feet. In Geary district, Jackson & Bowers completed a test on the Aaron White farm in the Salt sand at a depth of 1,210 feet. It gauges 149,000 feet a day.

In Tyler County, Victor Tennant completed a test on the Lindsay Le-

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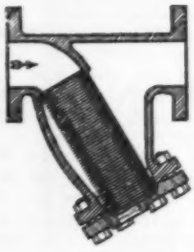

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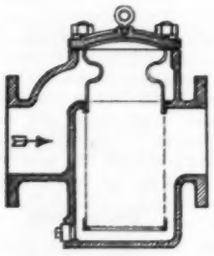

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masters farm in Meade district in the Big Injun sand at a depth of 1,896 feet. It is a fair gas well gauging 740,000 feet a day.

In Wayne County, the United Fuel Gas Co. completed a No. 4,583 on the Edmund Fry farm in Grant district at a total depth of 1,393 feet. Here the Big lime was at 1,120-1,282 feet with gas showing at 1,200-59 feet. There was a string of 6⅝-inch casing run to 1,127 feet. The Big Injun sand was at 1,318-41 feet with gas at 1,319-29 feet. The volume, however, is small, about 160,000 feet.

In Wetzel County, Smith & Eagan completed for the time a test on the Sampson Wood farm in Proctor district at a depth of only 756 feet. The Pittsburgh Coal was at 245 feet and the Big Dunkard sand struck at 752 feet which has a volume of gas gauging 212,000 feet a day. If this blows down the hole will be deepened.

Deep Tests

In Loudin district, Kanawha County, Godfrey L. Cabot, Inc., is 23 feet in the Oriskany sand in the test on the A. F. Vorholt farm, and is now core-drilling to test the porosity. No report of the upper part of the Oriskany sand has been made. Here this operator is fishing for the tools at 1,040 feet in the second test on the Kanawha Land Co. lease. Columbian Carbon Co. is drilling at 2,181 feet in the test on the S. H. Hoge farm.

In Malden district, the South Penn Oil Co. has a rig standing for a second test on the Katherine C. Scott farm. Here Godfrey L. Cabot, Inc., is down 500 feet in the test on the N. B. Tompkins farm and has a fishing job at 1,870 feet on the W. D. Lewis farm and one on the Campbells Creek Coal Co. No. 9 at 1,265 feet. Columbian Carbon Co. is drilling at 2,590 feet on the M. J. Dearins heirs test.

In Elk district, the company has reached a depth of 4,300 feet in the test on the G. and D. Copenhaver farm and 3,200 feet on the W. L. Burdette test. V. C. Smith and others are down 4,866 feet in the test on the island at the mouth of Coopers Creek. Clyde Oil & Gas Co. has plugged and abandoned the test on the M. A. McGraw (F. W. Shinn farm) after drilling to 4,916 feet.

In Jefferson district Benedum & Trees shut down the deep test on the Joseph Hill farm at 6,284 feet and are pulling outside string of casing. In Union district, Godfrey L. Cabot, Inc., is down 4,440 feet in the test on the Alberta Putney farm.

Other Operations

In Calhoun County, F. F. McIntosh has spudded in and started drilling the test on the Charles Poling farm in Sherman district. In Sherman district the Hope Construction & Refining Co. is rigging up the test on the Ocie Jarvis farm.

In Doddridge County, the Clifton Oil & Gas Co. is drilling a test on the Dallas Powell farm in Grant district, which has reached a depth of 1,300 feet.

In Gilmer County, the Chiefton Oil & Gas Co. has started drilling a test on the D. M. Steinbeck farm in Troy district. In Center district, Hamilton & Ayers have made a location for a test on the G. W. Conklin farm. In DeKalb district, Howard Robinson has part of the material on the ground for a test on the C. F. Stalnaker farm. E. D. Norman and others have a location for a test on the Everett Collins farm.

In Clay County, Virginian Gasoline & Oil Co. have made locations and are hauling in the material for Nos. 30 and 31 on the Brown, Swan, Goshorn and Geary lease in Henry district. This has been a very productive lease, the No. 29 starting off at 35 bbls. a day.

In Lincoln County, the Kanawha Gas & Utilities Co. has reached 1,875 feet on the George Black farm in Carroll district. In Logan district, Logan County, Zeibold, Rummell and others are drilling at 500 feet in the test on the George Nichols farm.

In Marshall County, the Cameron Light & Heat Co. has a rig standing for No. 5 on the M. E. Davis and others lease in Liberty district. In Monongalia County, the Moore Tex Oil Co. has started to drill deeper the No. 2 on the J. E. Moore and others farm on Dunkard Creek in Clay district. It is now 2,355 feet deep. The Carnegie Natural Gas Co. is down 331 feet in the test on the F. M. Shearer farm in Cass district.

In Wetzel County, Curtis B. Fleming is drilling a test on the C. E. Edgell farm in Church district. In Proctor district, the Manufacturers Light & Heat Co. is making a road to a location for a test on the Harry Palmer farm; drilling at 740 feet on the George Foland farm; and at 1,800 feet on the Thelma Allen farm. Columbian Carbon Co. is down 2,000 feet on the N. C. Adams farm. C. B. Kewis and others have reached 750 feet in a test on the John Blatt farm.

Southwest Texas Fields

(Continued from Page 64)

miles northwest of Mission will gunperforate casing for production at 4,660-66 feet which showed as producing sand in a recent Schlumberger test. This test is located in Hidalgo County. In Willacy County, King-Woods No. 1 Santa Rosa, 3 miles east of Sebastian, was plugged back from 5,965 feet to 5,790 feet. This test will perforate at 5,000-15 feet for production test at that sand.

Hildago County

Extensive future development in Hidalgo County is anticipated with the leasing of 3,650 acres north and east of Edinburgh by the Pan American Production Co. This acreage surrounds that of Gulf States Oil Co. which brought in a distillate well and is drilling two at the present time in the vicinity.

Zavalla County

Locations have been made and rigs will be moved in this week or as soon as possible for two tests, one the Buttram Petroleum Co. No. 1 Whitecotton, 2,340 feet from the west line and 330 feet from the north line of A.B.&M. Survey No. 1; and the other the Leona Oil Co. and Witherspoon Oil Co. No. 1 George West, 3,665 feet from the north line and 330 feet from the east line of the C. Bustillo Survey No. 1.

Frank L. Braybrook was recently elected mayor of Petrolia, Ontario, by acclamation. Mr. Braybrook has had long experience in foreign oil fields, and was formerly on the International Co. staff in Peru.

C. E. Dobbin, geologist with the U. S. Geological Survey, is making a field trip through Texas and New Mexico.

North Louisiana, Arkansas

TRINITY SAND DISCOVERY IN LINCOLN PARISH, LOUISIANA

By J. R. CRUMPTON

SHREVEPORT, La., Dec. 2.—A wildcat on one of the hot blocks in the North Louisiana district ran true to form and predictions and was completed during the past week as an immense saturated gasser from the Glen Rose series of the upper Trinity. The well, Herman L. Brown No. 1 Monstead, SE cor. of SW of section 10-17-4w, in the western part of Lincoln Parish, gauged 71,385,000 feet of gas from a total depth of 5,301 feet, subsea depth of 5,040 feet. The log shows top of massive anhydrites at 4,635 feet and base of this formation at 5,085 feet. Sand was cored from 5,279-92 feet and from 5,292-99 feet shows lime and shale. The gas is producing from the 13 feet of sand, believed to correspond to the Hill sand, first producing gas horizon in the Rodessa field. No test has yet been made on the gasoline content or the rock pressure but the latter is estimated to exceed 2,200 pounds.

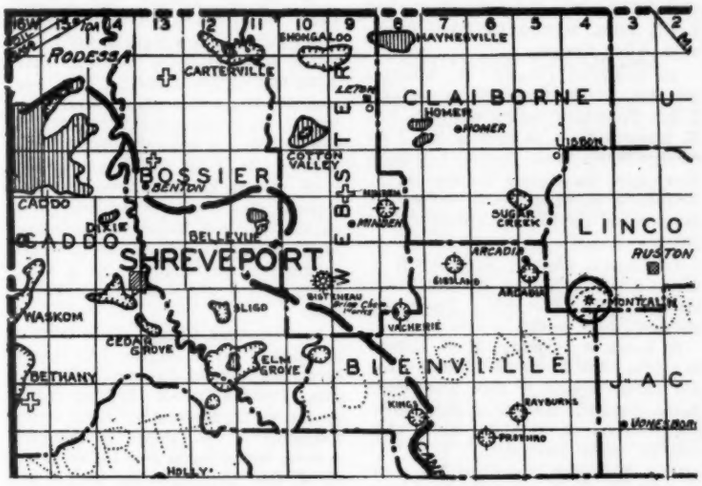
The completion of the wildcat rates in importance with the discovery of oil in Oolitic lime of the Glen Rose in the Rodessa field of Caddo Parish in July of this year and marks the third deep producing area in this district within this period. Operators believe that, like Rodessa, it will eventually develop into an oil field of large potential flow either deeper at the present location and vicinity or on the downdip from the gas area. The block of acreage was assembled by Herman L. Brown, David M. Lide, George Greer and M. H. (Pat) Marr. The gas rights were purchased recently on a large part of the acreage by the Arkansas-Louisiana Gas Co., a subsidiary of Cities Service, and the test was completed by this company. Another major company also bought considerable oil rights before the well was completed. The area will in all probability be known to the oil fraternity as the Simmsboro field, a village of that name being about 3 miles to the north. Ruston, seat of Lincoln Parish, is about 6 miles northeast of the new discovery. The nearest field now producing gas from the Glen Rose is Sugar Creek in Claiborne Parish, about 15 miles north and west, production coming from around the 4,300-foot level. Like the latter field, as well as Sligo in Bossier Parish, the new area contacts this pay around 1,300 feet shallower than in the Rodessa field.

Rodessa Allowable

The allowable production of the Rodessa field has been fixed at a maximum of 500 bbls. per well per day in the month of December. This includes wells completed in December.

The Rodessa field kept itself in the spotlight during the past 10 days by extending its boundaries 1 mile in two directions, the most important extensions since completion of the second producer. R. W. Norton No. 1 Fosque, 1,980 feet north and 660 feet west of SE cor. of section 20-23-16, is flowing 86 bbls. per hour on one-half inch choke on casing from a total depth of 6,004 feet, subsea depth of 5,784 feet. The well is producing from 32 feet of pay, contacted at 5,972 feet. It is located 1 mile west and slightly west of the discovery well and is a little more than one-quarter of a mile east of the Cass County, East Texas, line. The same operator's No. 1 Tyson heirs, 1,980 feet east and 660 feet south of the NW cor. of section 13-23-16, was completed flowing 65 bbls. per hour through one-half inch choke on casing, pressure 400 pounds, from a total depth of 6,032 feet, subsea depth of 5,777 feet. The well, the nineteenth producer, is located 1 mile northeast of nearest production. The two completions bear out the prediction of operators in Rodessa that the field will parallel the fault line and gas area, running northeast and southwest.

That the field has reached its limits to the north in the vicinity of present largest production was indicated by tests on George Mannahan No. 1 T. M. Comegys, section 10-23-16, one-quarter of a mile north of any well yet drilled. This well topped Hill sand at 5,748 feet, Gloyd sand at 5,855 feet and the Dees sand at 5,983 feet. Oolitic lime was cored at 6,020 feet and 7-inch casing run at 6,015 feet. A test developed salt water from a total depth of 6,026 feet and arrangements are being made to plug back and perforate. From results obtained on Vaughn Production Co. No. 1 Comegys, one-quarter of a mile south in the same section, it is highly improbable that the Mannahan well will be a producer. The Vaughn well with a total depth of 6,000 feet, and 7-inch casing set at 5,913 feet (corrected) has perforated casing from 5,874 feet to 5,910 feet. The well made 195 bbls. of oil the first 24 hours with an estimated 25,000,000 feet of gas. Tubing was set with gas jets and it flowed at the rate of 155 bbls. daily through wide open tubing with an estimated flow of 6,000,000 feet of gas. The oil tests 47 gravity. The operators are treating the hole with acid to increase the flow. The subsea depth of the Vaughn well is 5,784 feet and Mannahans subsea depth logs 5,821.6 feet, 37.6 deeper.



Trinity sand discovery in southwestern Lincoln Parish, Louisiana, and its location relative to other pools in the state

(Courtesy of Globe Map Co., Shreveport, La.)

Pelican Oil & Gasoline Co. No. 2 Sexton, 330 feet north and east of SW cor. of SE of NE of section 14-23-16, topped saturated lime at 5,977 feet, set 7-inch casing at 5,990 feet with the hole bottomed at 6,015 feet. On test it assures the field of its twentieth producer, but at this writing no gauge is available. Activity increases from week to week in the Rodessa area, 13 new locations being staked during the past seven days. The outpost tests are drawing the most attention but none of them have reached the depth as yet to check on the producers in the field. Lion Oil Refining Co. No. 1 J. M. Wynn, section 9-23-15, about 4 miles northeast, has spudded in. About midway between this test and production, M. H. Marr and others No. 1 W. J. Hunter, section 13-23-16, topped red beds at 3,450 feet and is drilling at 3,967 feet.

The most important wildcat operation announced in this district in several years was made by Ohio Oil Co. in staking its No. 1 R. L. Holloway, 660 feet south and 760 feet west of the center of section 23-21-10, in the Cotton Valley field of Webster Parish. The company, which is drilling the test without any cooperative financial assistance from other producers and operators in the field, announces that it will be carried to 10,000 feet if necessary. The Cotton Valley field, primarily a Blossom sand producer, has also produced both oil and gas from lime around 4,500 feet. A deep test drilled to 7,006 feet a few years ago cored a good Trinity sand but the hole was lost because of a bad 5-inch casing seat. This well was started for shallower depths and casing set at various depths reduced the hole to such an extent that the test was abandoned after salt water broke in due to the faulty casing seat. Those in on the "know" of the core recovered have looked upon the Cotton Valley area as practically assured of production from the lower Trinity series. The Ohio Oil Co. is moving in one of the largest and most complete rigs ever used in the North Louisiana district to drill the test.

Glen Rose Disappointment

Another hot wildcat, looked upon along with the Simmsboro test as a potential gasser or oil well from the Glen Rose, had barren results on test. American Liberty Oil Co. No. 1 Golson, section 25-17-1e, near the town of Eros, western Ouachita Parish, tested salt water through 2-inch tubing from 5,281 feet. The hole had previously been plugged back to the testing depth from an old total depth of 5,381 feet. Five and one-half inch casing was set at 5,200 feet. Amerada Petroleum Co. No. 1 Weil, section 53-1s-2e, set bottom-hole choke and it is flowing 56 bbls. daily through 10/64-inch choke on tubing from the plugged-back depth of 5,725 feet. The gas flow is 1,107,740 feet, tubing pressure registers 725 pounds and casing pressure 1,950 pounds. In the Sligo field, Bossier Parish, Triangle Drilling Co. has installed new rig and derrick on its No. 3 Skannall unit, well No. 1, in section 13-17-12, after both were destroyed by fire when the well ran wild two weeks ago. This is another interesting test to the Trinity sand below the Glen Rose gas-producing horizon. On the flank of this field, Producers Oil & Gas Co. No. 1 Pettitt, section 17-17-11, is drilling at 4,120 feet but no information can be obtained on the anhydrite or Glen Rose contacts.

Two small producers in widely separted fields, one in Bellevue, Bossier Parish, and the other in Holly, De Soto Parish, made up the list of oil wells in this district. A wildcat in Madison Parish in the northeastern part of the state, Southern Land & Exploration Co. No. 1 Delta Land Co., section 1-17-12e, encountered salt

water and was abandoned at 2,207 feet.

ARKANSAS

This district reported one completion and two new operations, both of the latter in proven territory. J. E. Crosbie, Inc., No. 1 M. W. Sullivant, section 12-17-14, Rainbow field, Union Parish, is flowing 500 bbls. daily through 2½-inch tubing from 3,175 feet. The oil is of 31 gravity and contains 5 per cent salt water.

The wildcats have made little progress during the past seven days with the exception of Haynes Oil Corp. No. 1 Embree estate, section 9-20-28, Miller County, and about 3 miles north of the Rodessa field in Caddo Parish. It is reported that this test had a good show of oil in the Woodbine sand, but this is not confirmed. It is drilling at 2,912 feet. Other wildcat operations follow: Benedum & Trees No. 1 Holmes, section 4-17-5, Ashley County, whipstocking at 4,205 feet, old total depth at 4,234 feet; the same company's No. 1 Brighton, section 29-14-19, Ouachita County, drilling white sand at 4,970 feet. In Clarke County a new wildcat has spudded in, Boris Triponoff No. 1 W. Gibbons, drilling at 210 feet. Another new wildcat, Magale & Elam No. 1 L. Garrett, section 13-17-20, Columbia County, is rigging up. McCall & Kelly No. 1 Ray Owen, section 26-10-16, Dallas County, after setting 6-inch at 1,248 feet, is bailing to test 4 feet of broken sand at 1,456 feet. Another deep test for the southeastern part of the state, Erwin & Leach No. 1 Bodcaw Lumber Co., section 26-16-23, Lafayette County, is moving in rig. The wildcat is located near the town of Stamps and on a structure bearing that name.

Cass County

American Liberty Oil Co. No. 1 J. B. Rodgers, C. M. Robinson Survey, a wildcat southwest of the Rodessa field, is drilling at 4,800 feet. Just inside the line from Louisiana, R. W. Norton No. 1 Haywood, Priscilla Evans Survey, is drilling at 3,313 feet, and United Gas Public Service Co. No. 1 Thurman, John Coleman Survey, is drilling in lime at 5,896 feet. The latter topped massive anhydrites at 5,263 feet.

Testing Utility Act

In Toledo, New York City and Wilmington, Del., the Cities Service Co. filed suit, November 29, challenging the constitutionality of the public utility act. Like actions were filed in New York by the Cities Service Co. and eight affiliates. At least 38 suits have been brought in the federal courts by major holding companies and their subsidiaries; 89 applications for exemption have been filed with the S.E.C.; three applications for registration by minor holding companies have been received.

Oil Aids Treasury

The federal government has received more than $103,494,547 revenue from royalties, bonuses, and rentals paid by companies developing oil, natural gas, and natural gasoline resources of public lands and naval reserves between 1921 and 1934, according to reports of the U. S. Department of the Interior.

Oil companies paying royalties, bonuses, and rentals have developed public lands in California, Colorado, Louisiana, Montana, New Mexico, Oklahoma, Utah and Wyoming.

Central West

Operations in Central Ohio, Kentucky, Illinois, Indiana

By GEORGE A. WHITNEY

FINDLAY, Ohio, Dec. 2.—A 25-bbl. well in Allen County in the Lima field was the best of the late crop of completions in that big area. Fair-sized gassers and a number of failures in the search for gas were reported from the Central Ohio field.

Lima Field

In Allen County, in the Lima field, Carman Oil Co. No. 5 Martha Powell, section 13, Bath Township, showed an initial of 25 bbls. Ottawa Lince Corp. No. 1 on the Fred Cook farm, section 30, in the Lima Corp, was a dry hole. Pease & Pease, trustees, are drilling No. 7 on the Nancy E. Leedy farm, section 14, Bath Township, Allen County.

In Auglaize County, D. Schillinger No. 1 fee property, section 10, Noble Township, was a dry hole. N. E. Masters & Co. is drilling No. 1 on George Ruble farm, section 11, Noble Township. In Mercer County, A. A. Lauber is drilling No. 1 on the C. Gray farm, section 16, Butler Township.

In Hardin County, Jupiter Oil & Gas Co. No. 2 George A. Matthews, section 18, Pleasant Township, showed 2 bbls. initial.

In Sandusky County, M. E. Keiser is drilling No. 17 on the Homer Russell farm, section 8, Rice Township. North Ohio Oil & Gas Co. abandoned No. 1 on the M. E. Bowe farm, section 19, Scott Township.

C. A. McMillan is drilling No. 1 on the Fuhrmeyer & Geisendorfer farm, section 24, Independence Township.

CENTRAL OHIO

In Wayne County, Ohio Fuel Gas Co. is drilling No. 1 on the Laura Williams farm, section 1, Clinton Township. Same company has locations for No. 1 on the Dennis Hiner farm, section 29, and a location for No. 1 on the Eli S. Finley farm, section 31, same township. Robison & Co., drilling No. 1 on the Raymond A. Lake farm, section 12, Clinton Township.

In Ashland County, Ohio Fuel Gas Co. is drilling No. 1 on the William Lee Hammett farm, section 16, Vermillion Township. Same company has a rig up for No. 1 on the J. F. Sigrist farm, section 5, Jackson Township, same county. Hulse & Kundtz were drilling No. 1 on the Clarence Frankfelder farm, section 16, Montgomery Township.

In Lorain County, William Dempsey is drilling No. 1 on the George Fisher farm, section 10, Avon Township, same county.

In Holmes County, Ohio Fuel Gas Co. is drilling No. 1 Nettie Martin, section 11, Mechanice Township. Same company has a location for No. 1 on the Phillip Mizer farm, section 26, Plain Township. Mehowa Oil & Gas Co. is drilling No. 1 Lloyd Alexander, section 25, Monroe Township.

In Summit County, the Pawnee Corp. No. 1 Board of County Commissioners is a gas well at 4,055 feet. Same corporation is drilling below 3,900 feet in No. 1 Martin Rees, section 16, Paris Township. East Ohio Gas Co. is drilling No. J. H. Wertz, section 31, Green Township, and drilling No. 1 on the Adam Lemby farm, section 17, same township. City Natural Gas Works is drilling No. 1 on the Mertz & Moyer farm, section 14, Pleasants Township, and the same company has a rig in for No. 3 F. A. Ruff, section 31, Rush Creek Township.

In Coshocton County, Pure Oil Co. is drilling No. 1 on the Ella Clark farm, section 14, Newcastle Township. Preston Oil Co., drilling No. 4 on the C. D. Mossholder farm, same township. C. C. Moore is reported drilling below 3,200 feet in No. 1 on the J. Lee Rerrilly farm, section 20, Jefferson Township.

Busy in Stark County

In Jackson Township, Stark County, Ohio Fuel Gas Co. is drilling No. 1 on the John E. Boerner farm, section 9; same company drilling No. 3 Eliz Harmont, section 27. Ohio Fuel Gas Co. made location for No. 4 on the Aaron J. Stoner farm, section 3. East Ohio Gas Co. is drilling No. 4 on the Peter Schensbeckler farm, section 7; drilling No. 4 on the Howard Fawcett farm, section 17, and drilling No. 4 James Boven, section 13, and is fishing in No. 1 on the J. & L. Deetz farm, section 21. In Plain Township, Stark County, Brendel Producing Co. is drilling No. 1 on the Anna R. Snyder farm, section 4. East Ohio Gas Co. has a rig up for No. 1 on the Nelson Stambaugh farm, section 4, same township. In Perry Township, Stark County, Lyons & Co. have a rig up for No. 1 on the Horace Fashnacht farm, section 11. East Ohio Gas Co. has a rig for No. 1 on the John B. Smith farm, section 1, Lawrence Township.

In Gallia County, Ohio Fuel Gas Co. and Penn-Ohio Gas Co. are drilling No. 1 Cyrus Swisher, section 25, Addison Township; Ohio Fuel Gas Co., drilling No. 1 S. R. Bing, section 22, same township; H. E. Hamilton, drilling No. 1 Ella S. Jones, section 31, same township; and Bowers & Co. drilling No. 1 Ella S. Jones farm, section 31, same township.

In Lawrence County, S. Straub is drilling No. 1 on the Caughlin Hunt farm, section 35, Windsor Township, same county.

In Delaware County, Chester Wise is drilling below 3,900 feet in No. 1 on the Herman D. Vance farm, section 3, Orange Township.

Oil Well in Putnam County

In Putnam County, Brown & Co. No. 1 produced an initial of 10 bbls. of oil at a depth of 1,340 feet.

In Perry County, Ohio Fuel Gas Co. No. 1 on the R. W. Snyder farm, section 5, Reading Township, was a gas well at a depth of 3,010 feet. Perry Sturm has a rig up for No. 2 E. L. Vansickle, section 5. Mideast Gas Co. has a rig up for No. 1 on the C. C. Ansel & Co.'s farm, section 13, same township. Caywood-Mid East Gas has a rig up for No. 2 Homer Caywood, section 11, same township. Westerman Bros. & Co., drilling No. 3 Harriett Gilmore, section 6, same township. Marshall Baughman & Co., drilling No. 1 on the A. J. Nautz farm, and Hopewell Oil & Gas Co. drilling No. 5 on the Michael Emmert farm, section 9, same township. Ohio Fuel Gas Co. got a dry hole in No. 1 on the Hoster L. Fisher farm, in Thorn Township, also in Perry County.

Drilling in Mexico

McALLEN, Tex., Dec. 2. — Three wildcats in northeastern Mexico are drilling, a new location has been made and Ohio-Mex Oil Co. has completed a discovery gasser in a new area south of the Rio Grande.

Company officials ordered completion of Ohio-Mex No. 3 Rancherias, about 5 miles southwest of Rio Grande City, Tex., but across the Rio Grande in Mexico. The test cored the lower sand, one of eight cored in the hole, at 1,900-53 feet and set a 10-inch O.D. oil string at 1,910 feet. Upon completion, the well gauged 50,000,000 to 55,000,000 feet of gas daily along with a spray of 50 gravity oil under pressure of 840 pounds. Operators estimated the well would make 35 to 40 bbls. of oil daily if the gas pressure were not so high. The well had gas sand at 1,900-37 feet with oil sand at 1,937-53 feet.

Location has been made and machinery is being moved in for No. 4 Rancherias, about 1,800 feet northwest of the discovery.

Eight miles southwest of Roma, Tex., and across the Rio Grande, Mier Oil Co. No. 1 Cia. Carbonifera de Mier, S.A., is again drilling and making hole below 2,300 feet. It is a mile west of the town of Mier and in the south half of Porcion 42, Community of Mier.

Cia. de Petroleo El Charro, S.A. No. 6 Rio Bravo, 23 miles southwest of Reynosa, Tamps., on the Reynosa-Monterrey highway, is below 200 feet.

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STOCKS HELD IN PACIFIC COAST TERRITORY BY CALIFORNIA OIL COMPANIES

	Oct. 31, 1935	Sept. 30, 1935	Oct. changes	Oct. 31, 1934
1. Nongasoline-bearing crude, residuum, gas and diesel oils	66,515,093	65,446,342	+1,068,751	72,604,524
2. Gasoline-bearing crude	35,408,486	34,957,772	+450,714	37,238,481
3. Unblended natural gasoline	1,541,558	1,851,425	—309,867	2,551,169
4. Gasoline (not including distributing and service stations)	8,898,477	8,635,555	+262,922	11,066,348
5. Naphtha distillates	*1,321,037	*1,235,955	—14,918	*989,230
6. All other stocks	19,202,237	18,989,222	+213,015	†7,816,768
Total	122,886,888	121,216,271	+1,670,617	132,266,520
*Estimated amount of unfinished gasoline contained in Item 5.	967,043	960,711		777,199
†Coke included in Item 6	494,414	509,151		591,515

WILDCAT OPERATIONS

OKLAHOMA WILDCATS

Week Ending November 30

NORTHERN OKLAHOMA

Alfalfa County

Tex-O-Kan Oil Co.'s No. 1 Acre, C SW NE Sec. 14-24-11w.
Lost circulation 6,718 ft.

Beaver County

Anderson & Kerr et al's No. 1 Davis, C SW SE Sec. 36-5-26 (Cimarron Meridian).
Drlg. 4,810 ft.

Beckham County

G. E. Martin's No. 1 Hood, C NE NW Sec. 7-8-23w.
T.D. 2,562 ft.; dry and abd.
Star Oil Co.'s No. 1 Blair, C NW SE Sec. 32-9-26w.
Drlg. 315 ft.

Caddo County

Deaver Prod. & Ref. Co.'s No. 1 Sah-Can, C SE SE Sec. 33-10-10w.
T.D. 8,550 ft.; waiting for csg.
H. W. Lee et al's No. 1 Horton, NE cor. Sec. 9-6-13w.
Drlg. 1,955 ft.
F. A. Turner et al's No. 1 Sapin, NE NE SW Sec. 1-5-11w
T.D. 3,193 ft.; trying to seat 5-in. csg.; to shut off water.

Cleveland County

Asa Lee Mayes, Inc.'s No. 1 Parsons, SW SW SE Sec. 30-9-1.
Drlg. 900 ft.
Hall-Briscoe, Inc.'s No. 1 Fant, SW SW NE Sec. 27-10-2w.
S.D. 7,470 ft.

Coal County

Carter Oil Co. et al's No. 1 Thompson, C S½ NE NW Sec. 34-2-9.
Drlg. 6,285 ft.
Southern Oil Co.'s No. 1 Fish, SW SW SW Sec. 6-1s-8.
Sylvan 570 ft.; drlg. 640 ft.

Comanche County

Oscar Jones' No. 1-A Scheets, NE SW Sec. 16-3-10w.
Rigged up.
F. B. Imboden et al's No. 1 Smith, SW cor. 12-2-10w.
Show of oil at 230-38 ft.
John Nicholas' No. 1 Householder, NE NE SW Sec. 8-2-10w.
S.D. 790 ft.
Geo. Pace et al's No. 1 Spencer, SW cor. SE Sec. 21-3-10w.
Drlg. 2750 ft.

Roger Mills County

Anderson & Kerr's No. 1 Teeter, C SE SE sec. 2-17-25w.
Drlg. 4000 ft.

Garfield County

Earl McBride et al No. 1 Gage estate, SE NW Sec. 27-22-3w.
Waiting on 10-in. csg. at 1,090 ft.
Herndon Drlg. Co. et al's No. 1 Whitaker, SE cor. Sec. 27-24-3w
Dolomite 4,903 ft.; show of oil at 4,-920 ft.

Garvin County

Charles Carter and W. S. Key, Inc.'s No. 1 Wood, NW SW SE Sec. 5-4-3e.
T.D. 2,405 ft.; dry and abd.
Buggett & McElreath's No. 1 Camp, NE NE SE Sec. 22-4-1w.
Simpson 4,335 ft.; drlg. 4,408 ft.

Grady County

Sayre Oil Co. No. 1 Brooks, NE SE SE Sec. 36-4-6w.
T.D. 3,000 ft.; dry and abd.

Grant County

Helmerich & Payne's No. 1 Crouse, C NE SW Sec. 29-25-8w.
T.D. 6,684 ft.; shot off pipe at 4,443 ft.; pulled 4,443 ft. of 8-in. csg.; P.B. from 4,514 ft. with 200 sacks cement.
Shell Pet. Corp.'s No. 1 Foster, NW SE Sec. 30-27-8w.
Drlg. 5,968 ft.
Wentz Oil Corp. et al's No. 1 Wirtz (Community), SE SE NW Sec. 22-28-4w.
Drlg. 5,225 ft
Southern Oil Co. et al's No. 1 Allen, SW SE Sec. 36-26-4w.
Layton 4,100 ft.; drlg. 4,330 ft.

Greer County

Benonine Oil Co. No. 1 P. S. Smith, SW cor. Sec. 17-5-23w.
Moving in rig timbers and tools.
H. N. Payne et al's No. 1 Tressell, NW cor. Sec. 1-7-22w.
T.D. 1,785 ft.; did not deepen; abd.

Hughes County

Caprock Oil Co.'s No. 1 Parks, SW SW SE Sec. 34-7-8.
S.D. 300 ft.
Sivalls et al's No. 1 Montgomery, NW SW NW Sec. 7-9-9.
T.D. 2,040 ft.; S.D.
Texas Co.'s No. 1 Keaton, NW SW Sec. 4-8-10
Hunton 3,835 ft.; T.D. 4,086 ft.; P.B. 3,848 ft.; 4,000,000 ft. gas; comp.

Kay County

Helmerich & Payne's No. 1 Roth, SW SW SW Sec. 8-28-2w.
Drlg. 2,700 ft.
A. D. Morton's No. 1 Warren, SE SE NW Sec. 19-29-4.
Sand 2,360 ft.; hole full water; drlg. 2,425 ft.

Kiowa County

Rajah Oil Co.'s No. 3 Stone, C SE NE Sec. 34-7-17w.
Salt water 1,430-1,547 ft., T.D.; plugged back to 960 ft.; acidized; pumped 12 bbls. in 8 hrs.

Lincoln County

W. N. Anthony's No. 1 Fruin-Eckman, SE SE SW Sec. 4-16-1e.
T.D. 5,181 ft.; bailed at 300 ft.; small show of oil and water; shut down.
M. W. Cozart's No. 1 Sekovaty, NE NE NW Sec. 14-14-3.
Cellar and pits.
Fred McDuff's No. 1 Jacob, NE NE SE Sec. 10-15-5.
Rig.
Stanolind O. & G. Co. and Amerada Pet. Corp. No. 1 Crawford, NE NE SE Sec. 35-15-2.
Pawhuska 1,600 ft.; T.D. 2,847 ft.; waiting on water.
Texas Co.'s No. 1 Vanderpool, NW SW SE Sec. 11-16-3.
Cleveland 3,320 ft.; drlg. 3,490 ft.

Logan County

Springrose Drlg. Co. No. 1 Wright, SW SW NW Sec. 32-15-1.
Rigging up rotary.
Stanolind O. & G. Co., Amerada Pet. Corp. and Eason O. & R. Co.'s No. 1 Gragg, SW SW NE Sec. 20-18-4w.
Skid rig 50 ft. S; drlg. 50 ft.
Texas Co. et al's No. 1 Wood, SW SW NE Sec. 34-15-4w.
Wilcox 7,096 ft.; T.D. 7,106½ ft.; dry and abd.

McIntosh County

Indian Ty. Ill. Oil Co.'s No. 1 Tancred, 1,050 ft. S and 390 ft. E of C. Sec. 9-9-14.
Drlg. 375 ft.

Okfuskee County

W. J. Sherry et al's No. 1 Washington, SW SW NE Sec. 21-13-7.
Brown lime 3,475 ft.; drlg. 3,710 ft.
Stanolind and Amerada's No. 1-A Washington, SE NE NE Sec. 13-13-7.
Location abd.
Sunray Oil Co.'s No. 1 Culla, NE SW NE Sec. 13-12-8.
Wilcox sands 4,165-80 ft., dry; 4,190-94 ft.; T.D.; water; P.B. to 4,005 ft.; flowed 150 bbls. in 3 hrs. with 2,500,000 ft. gas per day; shut in for tankage.

Oklahoma County

Mid-Continent Pet. Corp. No. 1 Dahl, NE NE NW Sec. 8-13-3w.
Rigging up.
Sinclair Prairie O. & G. Co.'s No. 1 Corbett, NE NW NE Sec. 17-13-3w.
Wilcox sand 6,645-6,706 ft.; plugged back to 6,524 ft.; cmtd. with 1,000 sacks at 5,100 ft.; leak in pipe at 5,220 ft.

Osage County

Texas Co.'s No. 1, SW cor. SE Sec. 22-24-6.
Wilcox 3,084 ft.; show oil at 3,120 ft.; drlg. 3,287 ft.

Pittsburg County

Vaughn Production Co. et al's No. 1 Chunn, 990 ft. N and 614 ft. W of C Sec. 29-4-14.
S.D. 1,170 ft.

Pontotoc County

Continental Oil Co. No. 1 McCarty, SE SE NW Sec. 12-1-7e.
McLish 4,427 ft.; T.D. 4,633 ft.; flowed 2,800 bbls. oil in 5½ hrs.; completed.
Delaney et al's No. 1 Fox, 1,337 ft. from N and 1,091 ft. from E lines of SE Sec. 2-1-7.
Cellar and Pits.
Franks Bros.' No. 1 Abbott, SW NW NE Sec. 34-3-6.
Rig.
Gypsy Oil Co.'s No. 1 Emry, SW SW NE Sec. 15-2-6.
Drlg. 4,165 ft.
McBride, Inc., et al's No. 1 Chester, SE SE NE Sec. 26-4-4.
Viola 1,524 ft.; T.D. 1,532 ft.; running 6-in.
McBride, Inc., et al's No. 1 Copeland, SE NW Sec. 31-4-5.
Viola 1,636 ft.; T.D. 2,100 ft.; dry and abd.
Orbit Oil Co.'s No. 1 Federal Land Bank, SE SW SW Sec. 10-4-3.
Drlg. 2,653 ft.
Schumacher et al's No. 1 Schumacher, NE NW NE sec. 23-5-10.
Drlg. 220 ft.
Southern Oil Co.'s No. 1 Perry, SW SW NW Sec. 11-4-6.
Sylvan 2,735 ft.; shut down at 2,741 ft.

Pottawatomie County

Ross Oil Co. et al's No. 1 Sparkman, SE NE Sec. 33-8n-4e.
Hunton 3,850 ft.; showing oil; standardizing at 4,137 ft.

Seminole County

L. Cooper's No. 1 Chandler, NE SE SW Sec. 4-5-6.
T.D. 1,780 ft.; dry and abd.
Deep Rock Oil Co.'s No. 1 Robert, SW NW NW Sec. 32-9-3.
Wilcox 4,569 ft.; cored water sand 4,-589-90 ft.; plugged back to 1,915 ft.

Texas County

Cabot Carbon Co.'s No. 1 Mathews, C NW Sec. 8-3-15 (Cimarron Meridian).
3,500,000 ft. gas 2,675-80 ft.; T.D. 2,680 ft.; fishing for tools.

Washita County

L. P. McWhirter's No. 1 fee, SW cor. Sec. 34-8n-19w.
Drlg. 1,264 ft.

SOUTHERN OKLAHOMA

Atoka County

L. O. Garner et al's No. 1 Garner, C NE NW NE Sec. 27-1n-15 (800-ft. test).
S.D. 825 ft.
Malarnee et al's No. 2 D.O.K. land, C SE SE Sec. 35-2s-13.
T.D. 3,136 ft.; temp. abd.
R. H. Pierce et al's No. 1 Aetna Life Ins. Co., NW SW NE Sec. 10-1n-13e.
Drlg. 2,754 ft.
Vierson et al's No. 1 Williams, NE SW NW Sec. 34-2s-10.
S.D. at 2,810 ft.

Bryan County

H. B. Smith et al's No. 1 Henry, C NW NE Sec. 10-8s-7e.
Rig.

Carter County

Carter Oil Co.'s No. 1 Carter-Williams, SW NE SW Sec. 27-2s-3w.
T.D. 8,085 ft., flowed 10,000 bbls. of oil in 24 hrs.; pipe stuck.
J. H. Hudson et al No. 1 Cathey, SE NE NE Sec. 6-5s-1w.
Location.
E. M. Hutchins No. 1 Moore, NE SE NW Sec. 30-4s-1w.
Location.
Louis Sikes' No. 1 Byrd, SW SE SW Sec. 4-2s-2w.
T.D. 1,727 ft.; blew in; 3,000,000 ft. of gas; killed; ran tubing, flowing 75 bbls. oil and water per day; rigging up to pump.

Choctaw County

Rhodes et al's No. 1 Possumik Savings Bank, SW NW Sec. 1-5s-17.
T.D. 605 ft.; temp. abd.

Comanche County

Imbodin et al's No. 1 Woods, SE SW SE Sec. 27-2-10w.
Pits.
F. F. Stevens' No. 1 Green, SE SE SW Sec. 2-1n-12w.
S.D. at 1,893 ft.

Cotton County

H. N. Haustic No. 1-A Weaver, C NW NE Sec. 27-4s-13w.
Rigging up rotary tools.
C. A. Yoakum's No. 1 Hunter, SE cor. NE sec. 9-3s-13w.
Drlg. 2,445 ft.

Jackson County

Associated Oil Co.'s No. 1 Harrell, NE NE SE Sec. 13-1s-21w.
S.D. 1,360 ft.

Jefferson County

L. C. Heydrick No. 1 O. W. Seay, SE NW NW Sec. 31-6s-5w.
Location.
Geo. Pace No. 1 Gardner, SW cor. Sec. 23-5s-5w.
10-in. csg. set at 66 ft.
Twin State Oil Co. No. 1 Bassett, NW SW SW Sec. 16-5s-7w.
Drlg. 2,220 ft.

Johnston County

Equitable O. & G. Co.'s No. 1 Bellsey, NE SW Sec. 12-3s-4e.
Drlg. 1,110 ft.
Godfrey & Neff's No. 1 Everets, NE cor SE SW SW Sec. 20-4s-6.
Dry and abd. at 390 ft.
Moore & Wirick's No. 1 Westheimer & Daube, SE NW NE Sec. 19-3s-4e.
Drlg. 940 ft.

Love County

Amerada Pet. Corp.'s No. 1-A Westheimer & Daube, SW SE SW Sec. 27-6s-3e.
Drlg. 2,910 ft.
Sinclair Prairie Oil Co.'s No. 1 Stockton, SE SE SW Sec. 26-6s-2w.
S.D. at 6,943 ft. for drlg. line.

Marshall County

Jess Cook et al's No. 1 May, NE NW Sec. 12-8s-5.
Dry and abd. at 570 ft.
Norman Smith's No. 1 Chestnut, NE cor Sec. 23-8s-5e.
S.D. 275 ft.
W. T. Singley et al No. 1 Halford, SW SE SW SW Sec. 22-7s-4.
Drlg. 40 ft.
W. T. Singley No. 1 Vickers, NW SW NW Sec. 22-7s-4.
Drlg. 30 ft.

Pushmataha County

C. W. Whitehead et al's No. 1 Misser, SE SW SW Sec. 25-2s-18e.
S.D. at 3,570 ft.

Stephens County

Franklin & Duncan's No. 1 Woolsey, NW NW SE Sec. 10-2s-4w (old well deepening).
T.D. 1,050 ft.; pulled rig in.
Nash et al No. 1 Saddler, SW cor. NW NW SE Sec. 30-2-4w.
T.D. 180 ft.; waiting for csg.
Prince Bros.' No. 1-A Williams, C SW SE Sec. 19-2-8w.
Dry and abd. at 2,505 ft.
Shasta Oil Co.'s No. 1 Fuqua, NE NW NW Sec. 13-1s-7w.
Drlg. 1,970 ft.
M. T. Summings No. 1-A Aldridge, NW NE SE Sec. 15-1s-4w.
Set 5-3/16-in. on top of gas sand at 362 ft.; drlg. plug.

Tillman County

J. B. Connelly's No. 1 McCord, NW SE NE Sec. 15-1-17w.
T.D. 665 ft.
Gypsy Oil Co.'s No. 1 Schenck, SE NW SE Sec. 31-1s-18w.
T.D. 2,560 ft.
Loper et al's No. 1 Conrad, NE cor. Sec. 25-1s-19w.
Dry and abd. at 1,737 ft.
R. O. Ray No. 1 Tucker, SW NW SW Sec. 17-1s-19w.
Location.

KANSAS WILDCATS

Week Ending November 30

(Descriptions are East unless marked otherwise)

Barton County

Hilligoss et al No. 1 Schmidt, NE cor. Sec. 27-19-11w.
Moving in material.
Larie O. & G. Co. et al's No. 1 Smith, SW NW NW Sec. 26-18-13w.
Fishing 2,065 ft.
Murphy & Morgan's No. 1 Robinson, NE NE SW Sec. 21-16-14w.
Rigging up.
Suppes & Witt's No. 1 Hayes, NW cor. Sec. 7-16-15w.
Dry and abd.; T.D. 3,534 ft.
Torry & Feaster No. 1 Kimpler, SE NE NE Sec. 31-18-11w.
Cleaning out 1,815 ft.
Torry & Feaster's No. 1 Feist, NE NE SE Sec. 29-18-11w.
Siliceous lime 3,430-32½ ft., T.D.; pumped 435 bbls. in 18 hrs., net.
W. E. Witt's No. 1 Murry, NW NW SW Sec. 14-17-14w.
Anhydrite 880 ft.; U.R. 12-in. to 890 ft.

Cowley County

Carey et al's No. 1 Short, NE NE NW sec. 6-32-4.
Drlg. 1,420 ft.
T. C. Johnson's No. 1-A Ferguson, NW SW SE Sec. 17-30-8.
Bailed 5 bbls. oil in 15 hrs. at 2,162 ft.; acidized with 1,000 gals.; no test.
Roth & Faurot's No. 1 Sherwood, NE NW SW sec. 11-31-4.
Rig.
Winkler, Koch et al's No. 1-B Harlan, C C S½ NW NE Sec. 13-31-7.
U.R. 10-in. csg. 1,310 ft.

Dickinson County

Dutch Oil Co.'s No. 1 Phillips, C NE NW Sec. 15-15-1e.
Shut down 2,535 ft.

Ellis County

Helmerich & Payne et al's No. 1 Kuhn, C NE quarter Sec. 16-14-20w.

Lamotte sand 3,397 ft.; fishing at 3,-900 ft.
Lario Oil & Gas et al No. 1 Walter, SE cr. SW Sec. 2-12-15w.
Rig.
Twin Drlg. Co.'s No. 1 Goetz, SW SW SE Sec. 3-14-17w.
Shut down 3,245 ft.

Ellsworth County

Empire Oil & Refining Co.'s No. 1 Dolchek, SW cor. sec. 7-16-7w.
Drlg. 495 ft.
Slick, Pryor & Lockhart's No. 1 Sturn, NW NW SW Sec. 26-17-10w.
Siliceous 3,322 ft.; drlg. 3,359 ft.

Graham County

Cusco Oil Co.'s No. 1 Kaufman, C NE NE Sec. 12-6-24w.
Rigging up.
Vickers Pet. Co. & Phillips Pet. Co.'s No 1 Hutton, 430 ft. from E line and 330 ft. from N line of SE¼ Sec. 29-8-22w.
Skidded rig 30 ft. W; rigging up.

Grant County

Piney Oil & Gas Co.'s No. 1 Kennedy, C SW¼ Sec. 10-29-36w.
Set 8-in. 2,482 ft.

Greenwood County

Mohawk Oil Co.'s No. 1-A Edgar, NE NE SW sec. 2-28-8.
Drlg. 1,200 ft.

Harper County

Marathon Oil Co. No. 1 Zellers, C SW NW Sec. 17-35-8w.
Rigging up.

Harvey County

Ok-Tex Oil Co.'s No. 1 Osborne, C SE SE sec. 6-22-3w.
Drlg. 1,930 ft.
Western Kansas O. & R. Co. No. 1 Warkentin, C SW SW Sec. 1-23-2w.
Moving in material.

Haskell County

Helmerich & Payne's No. 1 Elliott, C SW Sec. 30-29-33w.
Drlg. 2,184 ft.

Kingman County

D. R. Lauck's No. 1 Skilling, SE NE SW Sec. 33-27-8w.
Chat 4,032 ft.; drlg. 4,090 ft.

McPherson County

Whan et al's No. 1 Stromquist, SW SE SE Sec. 2-19-2w.
Dry and abd.; T.D. 2,455 ft.

Norton County

Lario O. & G. Co. and Elwell's No. 1 Kennedy, SW SW NW Sec. 22-3-23w.
Drlg. 1,300 ft.

Pratt County

Lario O. & G. Co., Ewell and Atlantic O P. Co. No. 1 Lemon, SE SE NW Sec. 12-29-13w.
Rigging up.
Skelly Oil Co. et al's No. 1 Comm. Gilchrist, C SE¼ Sec. 7-28-11w.
Viola lime 4,227 ft.; 196,000 ft. of gas; Cleaning out 4,229 ft.

Reno County

Dawe & Dustin's No. 1 Ghormley, C NE NW Sec. 17-24-7w.
Spudded and shut down.
Foraker et al's No. 1 Hiett, SE SW NE Sec. 34-24-4w.
U.R. 12-in. csg. to 1,485 ft.
Winkler & Koch et al's No. 1 Brownlee, SW cor. Sec. 31-24-10w.
Chat 3,790 ft.; base Mississippi 3,840 ft.; shut down 3,910 ft.

Rice County

Day's No. 1 Mason, NW NE NE Sec. 28-21-7w.
Drlg. 3,012 ft.
Detrick et al's No. 1 Monroe C NE NE Sec. 9-20-7w.
Shut down 975 ft.
Empire O. & R. Co.'s No. 1 Schroeder, SW SE SE Sec. 7-18-9w.
Siliceous 3,249 ft.; T.D. 3,268 ft.; hole full of water; dry and abd.
Detrick et al's No. 1 Conner, C NE NE Sec. 28-19-7w.
Shut down 2,765 ft.
L. H. Wentz No. 1 Bushong, SW cor. Sec. 30-21-10w.
Location.

Rooks County

El Dorado Refining Co.'s No. 1 Marshall, C SE SE Sec. 5-7-17w.
Siliceous 3,392-3,407 ft.; cleaning out.
F. A. Gillespie & Sons' No. 1 Low, NE NE NW Sec. 12-6-18w.
Drlg. 2,650 ft.
Murfin et al's No. 1 Wasthusin, NE NE SE Sec. 19-9-16w.
S.D. 1,300 ft.

Rush County

E. L. Byers et al's No. 1 Ewing, NW SW SW Sec. 35-19-15w.
Rig.
Ramsey Pet. Co. et al's No. 1 Darkes, C W½ W½ NW Sec. 5-17-20w.
Simpson 4,090 ft.; hole full of water 4,122 ft.; show of gas 4,240 ft.; T.D. 4,242 ft.; temp. abd.
Torrey & Feaster et al No. 1 Winget, SE cor. Sec. 15-16-16w.
Location.

Russell County

Central Pet. Co.'s No. 1 Boxberger, NW cor. Sec. 24-15-15w.
200 ft. oil in hole at 3,090-3,161 ft.; cleaning out.

Ceralena Oil Co.'s No. 1 Berrick, NE NW NE Sec. 6-15-13w.
Oswald 2,894-2,923 ft.; swabbed 65 bbls. oil in 6 hrs.; water 3,219-20 ft.; plugged back to 2,945 ft.; drlg. 2,953 ft.
L. D. Davidson et al's No. 1 P. Polcyn, SE SW NW Sec. 6-14-15w.
Oswald 3,110 ft.; drlg. 3,270 ft.
Empire O. & R. et al No. 1 Major, SE cor. Sec. 11-14-12w.
Location.
Sam Murphy et al's No. 1 Enschutz & Schaffer, SW cor. Sec. 10-15-13w.
Rigging up.
Murfin et al's No. 1 Gorham estate, NE NE SE Sec. 23-14-15w.
Drlg. 2,730 ft.
Phillips Petroleum Co. and Sinclair Prairie Oil Co.'s No. 1 Driscoll, NW NW SE sec. 31-15-11w.
Running 12-in. csg. at 545 ft.
Warren Oil Co. No. 1 Bratton, SE cor. Sec. 25-11-13w.
Moving in material.
Winkler & Koch No. 1 McAllister, NE NE SE Sec. 9-12-13w.
Rig.

Sedgwick County

Derby et al No. 1 Bartholomew, SW SW NW Sec. 8-27-4w.
Viola 4,016 ft.; T.D. 4,155 ft.; P.B. 4,023 ft.; pumped 102 bbls. oil; complete.
Dickey Oil Co.'s No. 1 Wilbur, SW cor. 15-27-1w.
Chat 3,195 ft.; drlg. 3,385 ft.

Stafford County

Atlantic Oil Producing Co., Phillips Petroleum Co. et al's No. 1 Brown C NW NE Sec. 16-23-13w.
Siliceous lime 3,900 ft.; water at 3,-919½; T.D. 3,940 ft.; plugged back to 3,750 ft.; shot 30 qts. 3,730-40 ft.; dry and abd.
Herndon Drlg. Co. and Atlantic O. P. Co. No. 1 Russell, C SE SW Sec. 20-21-14w. 12-in. csg. 249 ft.; waiting.

Sumner County

Orcutt & Stewart's No. 1 Newton, SE cor. Sec. 21-30-2.
Drlg. 50 ft.
C. Pulse's No. 1 Buss, NW cor. Sec. 13-32-2.
U.R. 10-in. csg. 1,730 ft.
D. J. Wilson et al's No. 1 Clark, 1,320 ft. from W and 25 ft. from S line of NW Sec. 15-35-1w.
Drlg. 2,670 ft.

Trego County

Central Commercial's No. 1 Wagg, NW NW SE Sec. 17-13-21w.
Anhydrite 1,598 ft.; drlg. 1,620 ft.
Vickers et al's No. 1 Becor, NW NW NW Sec. 25-15-24w.
Siliceous lime 4,405 ft.; T.D. 4,472 ft.; 5-in. casing froze; rigging up heavier equipment.

Woodson County

Coulter, Davidson et al No. 1 Parke, NW NW SE Sec. 25-25-12.
Fishing at 1,454 ft.

GULF COAST WILDCATS

Week Ending November 30

Raccoon Bend—Austin County

Humble O. & R. Co. No. 9 Hellmuth, 2,621 ft. southeasterly along NE line from N cor., thence 150 ft. southwesterly at R/A. Drlg. shale 3,307 ft.; 10¾-in. csg. at 1,080 ft.
Humble O. & R. Co. No. 4-X McCasland, 2,133 ft. northeasterly along the most westerly NW line from most westerly W cor., thence 141.5 ft. SE at R/A. Drlg. shale 2,998 ft.
Humble O. & R. Co.'s No. 1 Buchanan, 465 ft. SW line, 309 ft. NW line of lease, Wm. C. White Sur. (workover).
T.D. 4,177 ft.; top sand 4,124 ft.; rigged up to pump.
Humble O. & R. Co.'s No. 7 McCasland, 397 ft. SW of most northerly corner of A. T. McCasland tract, thence 168 ft. NW at right angles, Wm. C. White Sur. T.D. 4,120 ft.; top sand 4,025 ft.; 7-in. csg. at 4,016 ft.; I.P. 24 bbls. per hour, ¼-in. choke; T.P. 400 lbs.; C.P. 450 lbs.
Humble O. & R. Co.'s No. 16-X Woodley, 750 ft. NE of SW line, 850 ft. NW of SE line, 300 ft. SE of No. 15-X, Wm. Harvey Sur.
T.D. 3,458 ft.; top sand 3,400 ft.; 7-inch csg. at 3,397 ft.; rigged up to pump.
Humble O. & R. Co.'s No. 2 H. F. Graves, 682 ft. NE of No. 1, 150 ft. SE of NW¼ of 63.5-ac. tract, Smeathers Sur. Location.

Damon Mound—Brazoria County

Intercoastal Oil Co.'s No. 14 Wisdom, 24 ft. NE of SW line, 42 ft. NW of SE line of Lot A, Blk. 51, A. Darst Sur. Location.
Henry Wisdom's No. 4 fee, 200 ft. due W of No. 2, A. Darst Sur.
Rig up.

Hastings—Brazoria County

Humble O. & R. Co.'s No. 1 G. W. Nelson, 220 ft. N and W of SE cor. of Lot 3, Sec. 26, approx. 660 ft. W of No. 2 Cannon, H.T.&B. Sur. No. 36.
Drlg. sandy shale 6,017 ft.
Humble O. & R. Co.'s No. 1 J. F. Bridges, center of N 10 acres of 20-ac. lease, A.C.H.&B. Sur. No. 2.
Location.
Humble O. & R. Co.'s No. 2 J. F. Bridges, center of S 10 acres of 20-ac. lease, A.C.H.&B. Sur. No. 2.
Location.
Stanolind O. & G. Co. No. 1 F. M. Berger, 240 ft. S, 330 ft. E of NW cor. of 1,583-ac. tract, H.T.&B. Sur. No. 37.
Derrick.
Stanolind O. & G. Co. No. 3 Shaw, 240 ft. N, 330 ft. W of SE cor. of 120-ac. tract, H.T.&B. Sur. No. 36.
Derrick.
Stanolind O. & G. Co. No. 4 Surface, 320 ft. S, 990 ft. E of most westerly NW cor. of 75.9-ac. tract, A.C.H.&B. Sur. No. 2.
Drlg. shale 3,100 ft.
Stanolind O. & G. Co. No. 6 Sneed, 436 ft. at R/A to most southerly N line and 361 ft. R/A to most westerly E line of 225-ac. lease, A.C.H.&B. Sur. No. 2.
Drlg. sand and shale 780 ft.
Stanolind O. & G. Co.'s No. 2 Shaw, 330 ft. W of most northerly NE cor. of 120-acre tract, H.T.&B. Sur. No. 36.
T.D. 5,944 ft.; 7-in. csg. at 5,690 ft.
Stanolind O. & G. Co.'s No 4 Drake, 330 ft. S, 330 ft. E of most westerly NW cor. of Drake 120-acre tract, H.T.&B. Sur. No. 36.
T.D. 2,033 ft.; 10¾-in. csg. at 2,031 ft.
Stanolind O. & G. Co.'s No. 3 Pennock, 1,320 ft. S, 330 ft. E of NW cor. of 40-acre tract, H.T.&B. Sur. No. 36.
Drlg. shale 5,408 ft.
Stanolind O. & G. Co.'s No. 2 Kidd, A.C. H.&B. Sur. No. 2, 330 ft. E of most easterly W line, 416 ft. S of N line of 58.4-ac. tract.
T.D. 6,137 ft.; P.B. to 6,100 ft.; drilled cmt. to 6,105 ft.; preparing to perforate.
Stanolind O. & G. Co.'s No. 2 Drake, 330 ft. N, 1,650 ft. W from SE cor. of 120-ac. lease, H.T.&B. Sur. No. 36.
Derrick.
Stanolind O. & G. Co.'s No. 2 Pennock, 330 ft. N, 1,650 ft. W from SE cor. of 40-ac lease, H.T.&B. Sur. No. 36.
T.D. 6,036 ft.; 7-in. csg. 5,887 ft.; I.P. 275 bbls. in 15 hrs., ¼-in. choke; T.P. 825 lbs.; C.P. 875 lbs.
Stanolind O. & G. Co.'s No. 4 Sneed, 330 ft. S, 330 ft. W of NE cor. of Lot 12, D. M. Jay Subd., on Sneed 225-ac. tract, A.C. H.&B. Sur. No. 2.
Drlg. shale 3,665 ft.

Manvel—Brazoria County

Gulf Prod. Co.'s No. 5 Colby, 330 ft. from NW line of lease, 660 ft. SW of No. 3, T. Spraggins Sur.
T.D. 4,637 ft. in sand.
Jay Simmons' No. 1 Wilson, center of Lot 25, H.T.&B. Sur. No. 23.
Location.
Sinclair Prairie Oil Co.'s No. 1 Michaelson, 330 ft. E of W line and midway of N and S lines, Lot 19, H.T.&B. Sur. No. 24.
Location.
J. W. Sorrells' No. 1 Swift, Blk. 21, Abst. 318, H.N. Little Sur.
Derrick.
Texas Co's No. 19 Houston Oil Field Assn., 330 ft. N, 76 ft. from SW cor. of Lot No. 31, A.C.H.&B. Sur. No. 91.
Drlg. lime and shale 4,071 ft.
Texas Co.'s No 17-B Belcher, N 48 deg., W 2,200 ft., N 42 deg., 955 ft. from S cor. of lease and survey, H. N. Little Sur.
T.D. 5,150 ft.; running 7-in. csg.
Texas Co.'s No. 2 John Groce, 857 ft. S, 200 ft. E of NW cor. of Chas. O'Donnell Sur.
Drlg. shale and lime 4,701 ft.
Texas Co.'s No. 1 Doonan, 990 ft. N, 43 deg. E and 330 ft. S, 43 deg. E from W cor. of Lot 17, T. Spraggins Sur.
Drlg. sand and shale 5,239 ft.
Texas Co.'s No. 4 Rash, 43 deg. E, 1,650 ft. S and 43 deg. W, 330 ft. N of NE cor. of lease, T. Spraggins Sur.
Plugged back to 4,198 ft. from 4,300 ft.; 7-in. csg. 4,198 ft.; T.D. 4,300 ft.; P.B. 4,142 ft.; swabbing.
Texas Co.'s No. 2 Dawson, 247 ft. S, 241 ft. W of NE cor. of Lot 58, H.T.&B. Sur. No. 23.
Location.

Pledger—Brazoria County

Humble O. & R. Co.'s No. 2 Smith, 2,050 ft. NE of SW line, 1,810 ft. NW of SE line, 2,200 ft. SE of NW line, Troy & Moore Sur.
Drlg. shale and lime.

West Columbia—Brazoria County

Varner Oil Co.'s No. 1 Hogg, 800 ft. from most easterly W line and 3,600 ft. from N line of 400-ac. tract, M. Varner Sur.
Drlg. 1,010 ft.

Port Lavaca—Calhoun County

Crown Central Oil Co.'s No. 1 Wilson, 600 ft. NW line, in center of tract, A. Esparza Sur.
T.D. 6,150 ft.; fishing for stuck drill stem.

Anahuac—Chambers County

Domestic Exploration Co.'s No. 1 Marshall, 466 ft. out of NE cor. of A. W. Marshall 54.6 acre tract, H.&T.C. Sur., Sec. 55.
Drlg. sticky shale 6,467 ft.
Gulf Prod. Co. No. 2 Knowles, 200 ft. EW line, 431 ft. NS line of Sec. No. 48.
Bldg. derrick.
Humble O. & R. Co.'s No. 5 Clark, 466 ft. WE line, 2,212 ft. NS line of H.T.&C., Sec. 57.
Derrick.
Humble O. & R. Co. No. 1 W. C. Tyrell, 466 ft. WE line, 466 ft. SN line of H.&T. C. Sur., Sec. 52.
Location.
Humble O. & R. Co. No. 2 Tyrell, 1,922 ft. SNL, 1,317 ft. WE line of H.&T.C. Sur., sec. 52.
Location.
Humble O. & R. Co.'s No. 10 Middleton, 466 ft. from N and E lines of A. Milton Sur. No. 58.
Location.
Humble O. & R. Co.'s No. 6 Broussard, 3,058.4 ft. from W line, 466 ft. from N line, H.&T.C., Sec. 63.
Location.
Humble O. & R. Co.'s No. 7 Clark, 1,205.5 ft. from N line, 466 ft. from W line, H.&T.C., Sec. 57.
Drlg. sandy shale at 5,765 ft.
Humble O. & R. Co.'s No. 4 White, 466 ft. NS line, 466 ft. EW line of J. McGahee Sur.
T.D. 7,083 ft.; top sand 7,021 ft.; setting 7-in. csg.
Humble O. & R. Co.'s No. 1 Zappe, 466 ft. from S and E lines, H.&T.C., Sec. 51.
Drlg. sandy shale 6,292 ft.
Humble O. & R. Co.'s No. 2-B Broussard, 869 ft. E of No. 1-B, 466 ft. S of N line, Sec. 59, H.&T.C. Sur.
T.D. 7,082 ft.; top sand at 7,002 ft.; 7-in. csg. at 7,042 ft.; drlg. plugs.
Humble O. & R. Co.'s No. 3-B Broussard, 869 ft. E from No. 2-B, 466 ft. S of N line, Sec. 59, H.&T.C. Sur.
Location.
Humble O. & R. Co.'s No. 9 Middleton, 873 ft. S of No. 5, 466 ft. W of E line, Sec. 58, H.&T.C. Sur.
T.D. 7,080 ft.; top sand 6,964 ft.; 7-in. csg. at 7,042 ft.
Humble O. & R. Co.'s No. 6 Clark, 1,339 ft. N of S line, 466 ft. E of W line of Sec. 57, H.&T.C. Sur.
Location.
Humble O. & R. Co.'s No. 8 Middleton, 2,212 ft. E of W line, 466 ft. N of S line of Sec. 58, H.&T.C. Sur.
Top sand 6,905 ft.; T.D. 7,085 ft.; 7-in. csg. 7,039 ft.; I.P. 28 bbls. per hour, ¼-in. choke; T.P. 1,400 lbs.; C.P. 1,700 lbs.
Humble O. & R. Co.'s No. 2 Broussard, 2,332 ft. E of W line, 2,332 ft. N of S line of Sec. 63, H.&T.C. Sur.
Location.
Johnson & Anderson's No. 1 J. T. White, 466 ft. from S and E lines of N 400 acres of James McGahey Sur.
Coring sandy shale 7,155 ft.
Sun Oil Co. No. 5 White, 200 ft. WE line, 467 ft. NS line of lease and survey, James McGahey Sur.
Location.
Sun Oil Co. No. 6 White, 933 ft. W of No. 4, 517 ft. SN line of lease, James McGahey Sur.
Location.
Sun Oil Co.'s No. 4 White, 933 ft. W of No. 3., 516 ft. S of N line of lease, J. McGahey Sur.
T.D. 7,084 ft.; oil sand; reaming to set csg.

Barbers Hill—Chambers County

Sinclair Prairie No. 19 Wilburn, 150 ft. W of No. 18, 50 ft. SN line of lease, Henry Griffith Sur.
Derrick.
Sun Oil Co.'s No. 18 Wilburn, 80 ft. N, 75 ft. E of SW cor. of tract, Wm. Hodges Sur.
T.D. 1,479 ft.; 18⅝-in. csg. at 1,437 ft.; salt.
Stanolind Oil & Gas Co.'s No. 11-B Wilburn, 50 ft. E of W line, 50 ft. S of N line of tract, Wm. Hodge Sur.
Drlg. shale 1,510 ft.
Stanolind O. & G. Co.'s No. 29 Chambers, 224 ft. E of No. 21 W. Bloodgood Sur.
Derrick.
Stanolind O. & G. Co.'s No. 31 Chambers, 20 ft. S, 50 ft. W of NW cor. of Sur. A lease.
Top oil sand 4,207 ft.; coring sand and shale 4,245 ft.; no report.
Texas Gulf Prod. Co. No. 7 Wilburn, 70 ft. W of E line, Wm. Hodge Sur.
Rig up.

Big Creek—Fort Bend

Gulf Prod. Co.'s No. 66 Davis, 2,760 ft. NE along SE line of lease from W corner of Texas Co.'s 300-ac. lease, 1,285 ft. NW at R/A, M. Young Sur.
Drlg. sand and shale at 3,777 ft.

Boling—Fort Bend County

Texas Co. No. 15-A Taylor, 683 ft. SE of No. 11-A, 683 ft. NW of No. 12-A, S. F. Austin Sur.
Rig up.

Orchard—Fort Bend County

Gulf Prod. Co.'s No. 2-A Moore, Burnap Sur.
Drlg. lime 780 ft.
Gulf Prod. Co. No. 44 Moore, 500 ft. NW of No. 42, Leo Burknapp Sur.
Drlg. lime and rock at 2,722 ft.
Gulf Prod. Co. No. 43 Moore, 350 ft. E along S line of SW cor. of E.M.&G. Co. Sur. and 740 ft. N at R/A to said line of lease, 350 ft. E of No. 3 Moore.
Drlg. shale and lime 6,695 ft.

Thompson—Fort Bend County

Gulf Prod. Co. No. 14-A Gubbles, 970 ft. S of N line, 1,345 ft. W of E line, 123-ac. tract, Blk. 6, Tract No. 3, S. Kennedy Survey.
Drlg. sand 5,370 ft.

High Island—Galveston County

Stanolind O. & G. Co. No. 1-C Marrs-McLean, 450 ft. S of N line of Lot 5, M. Dunman Sur.
Drlg. shale and lime 3,638 ft.
Stanolind O. & G. Co. No. 1-D Smith Royalty Acct., 200 ft. EW line, 1,660 ft. NS line, Susan Hope Sur. No. 3.
Drlg. sandy shale 4,933 ft.
Stanolind O. & G. Co. No. 50 Cade, 350 ft. WE line, 950 ft. NS line of 460-ac. tract, N. Fitzsimmons Sur.
Drlg. shale 1,780 ft.

Stanolind O. & G. Co. No. 51 Cade, 690 ft. SN line, 620 ft. WE line of 460-ac. tract, Fitzsimmons Sur.
Rig up.
Stanolind O. & G. Co. No. 49 Cade, 372 ft. from NW line, 150 ft. from NE line of N. Fitzsimmons Sur.
T.D. 6,119 ft.; 7⅝-in. csg. 6,095 ft.; I.P. 320 bbls. per hour.

Dickinson—Galveston County

Coast Pet. Co. No. 2 Maco Stewart, 660 ft. due W of No. 1, 330 ft. NS line of lease, W. K. Wilson Sur.
T.D. 8,657 ft.; made electrical coring test.
Humble O. & R. Co. No. 1-B Anderson, 352 ft. WE line, 777 ft. EW line and 338 ft. NS line, Lot 2, Blk. 15, J. Sellers Sur.
Drlg. shale 2,195 ft.; 20-in. csg. at 212 ft.
Humble O. & R. Co. No. 1-B San Leon, 381 ft. SE of NW line and 300 ft. SW of NE line of S½ of Blk. 102, A. E. Edwards Sur.
Drlg. shale 1,221 ft.
Humble O. & R. Co. No. 3-B Stewart, 3,954 ft. S along E line from NE cor. and 577.2 ft. W at right angles, J. Sellers Sur.
Coring shale 8,490 ft.
Humble O. & R. Co. No. 1 San Leon Farm, 1,300 ft. N of N bank of Dickinson Bayou, 100 ft. E or EL of J. S. Jones Sur. in 300-ac. tract, A. Edwards Sur.
T.D. 8,060 ft.; 7-in. csg. 8,010 ft.; I.P. 30 bbls. per hour, ¼-in. choke; T.P. 1,500 lbs.; C.P. 1,600 lbs.
Humble O. & R. Co. No. 6-A Maco Stewart, 6,087 ft. S of NE cor., 1,390 ft. W of E line and 1,390 ft. E of W line and 466 ft. N of S line of Stewart.
Coring shale 9,045 ft.; 7-in. csg. 8,974 ft.
Humble O. & R. Co. No. 5-A Stewart, 466 ft. W of E line of Stewart "A" Lease, 5,500 ft. due S of No. 2-A Stewart, John Sellers Sur.
Rig.
Pure Oil Co. No. 2 J. W. Shelor, 779 ft. N, 182 ft. W of N. I. Shelar, B.B.B. &C. Sur.
T.D. 8,481 ft.; cutting and pulling csg. at 3,004 ft.
Stanolind O. & G. Co. No. 3 State, 683 ft. SE of No. 1, 218 ft. N of S bank of Dickinson Bayou Sur., Tract No. 3.
T.D. 8,132 ft.; reaming to set 7-in. csg. at 8,083 ft.
Stanolind O. & G. Co. No. 2 State, 1,369 ft. E of No. 1 State.
Drlg. shale 9,135 ft.
Turman Oil Co. No. 2 Piazza, 231 ft. E of E line, 730 ft. S of N line, 945 ft. E of No. 1, J. S. Sherman Sur.
Location.

Batson—Hardin County

D & L. Prod. Co. No. 1 Hooks, 100 ft. S of N line, 300 ft. E of W line 26.75-ac. tract, W. Donoho Sur.
T.D. 6,502 ft.; surveying hole.
John Deering et al No. 1 J. W. Whitley, 160 ft. SN line, 240 ft. EW line of 120-ac. tract, W. Donoho Sur.
S.D. 780 ft.; rigging up heavier rig.
Shell Pet. Corp. No. 2 Jackson, 190 ft. W EL, 395 ft. N of SL of lease, W. Donoho Sur.
Rig up.
Texas Co. No. 2 Christian, 510 ft. S, 460 ft. E of NW cor. of Willis Donoho League.
Drlg. sand and shale 3,741 ft.

Saratoga—Hardin County

Hines No. 2 Caswell, 3,600 ft. N of S line, 1,376 ft. E of W line of B.B.B.&C.R.R. Co. Sur. No. 72.
T.D. 3,620 ft. (corrected); oil and gas show.
Rio Bravo Oil Co. No. C-144, 160 ft. E, 330 ft. N from SW cor. of Cotton tract.
Drlg. sand and shale showing oil at 597 ft.; no report.

Pierce Junction—Harris County

J. S. Abercrombie et al No. 7 John Ritter, 535 ft. E of W line, 156 ft. N, 17 deg. 42 ft. W at right angles, James Hamilton Sur.
Drlg. shale and lime 3,625 ft.
Navarro Oil Co. No. 3-B Cain, Jas. Hamilton Sur.
T.D. 7,078 ft., shale; heaved to 7,018 ft.; P.B. to 6,130 ft.; sidetracked and drilled at 5,554 ft.; twisted off D.S.; Abandoned.
Rio Bravo Oil Co. No. 3 Rio Bravo, G.H. &S.A.R.R., 1,400 ft. EW line of survey, 10 ft. SN line at right angles, J. Hamilton Sur.
T.D. 3,492 ft.; set whipstock at 2,538 ft.; drlg. sand and shale 3,142 ft.

Humble—Harris County

Texas Co. No. 39 Koehler, 1,281 ft. S and E and 150 ft. N of SW cor. of lease, J. Stevenson Sur.
T.D. 585 ft.; gumbo; running 10¾-in. csg.

Mykawa—Harris County

Danciger O. & R. Co. No. 4 Minnetex, 300 ft. WE line, 250 ft. SN line of Lot 192, Wm. Lovett Sur.
Drlg. sand and shale 5,155 ft.; 5½-in. csg. at 4,968 ft.
West Prod. Co. No. 2 Medelsohn & Ryan, 402 ft. EW line and 440 ft. S of No. 1, F. J. Rothes Sur.
Drlg. shale 2,748 ft.
West Prod. Co. No. 5 Irwin, 795 ft. SN line, 806 ft. WE line of lease, W. B. Walker Sur.
T.D. 4,366 ft.; 7-in. csg. 4,193 ft.; I.P. 15 bbls. per hour, ¼-in. choke.

South Houston—Harris County

Diadem Oil Co. No. 1 Mrs. Alice Dean, center of Lot 152, H.T.&B. Sur. No. 6, 141 ft. EW line, 100 ft. SN line of lot.
Oil sand 4,720-30 ft.; 7-in. csg. 4,712 ft.; T.D. 4,791 ft.; I.P. 12 bbls. per hour, ¼-inch choke; T.P. 300 lbs.
Stanolind O. & G. Co. District 21, center Lot 1, Blk. 62.
T.D. 4,015 ft.; D.S.T. from 3,990-4,015 ft.; tested 75 lbs. pressure in 13 min., ¼-in. choke; recovered 810 ft. of oil.
Stanolind O. & G. Co. District 27, No. 1, center Lot 1, Blk. 102.
Drlg. shale 3,783 ft.
Stanolind O. & G. Co. Drlg. District 10, center Lot 16, Blk. 28.
T.D. 4,888 ft.; making electrical coring test to 4,885 ft.
Stanolind O. & G. Co. No. 1 fee, 330 ft. S, 300 ft. E of NW cor. of 20-ac. tract, H.T.&B. Sur. No. 5.
T.D. 6,050 ft.; P.B. to 5,300 ft.; cut 7-in. csg. 4,500 ft.; abd.

Tomball—Harris County

Humble O. & R. Co. No. 1 Michel, 600 ft. NS line, 689 ft. EW line, 689 ft. WE line, C. N. Pillot Sur.
T.D. 955 ft.; setting 10¾-in. csg.
Humble O. & R. Co. No. 3 Milo, 466 ft. W of most easterly E line, 250 ft. S of most southerly N line of lease, C. N. Pillot Sur.
T.D. 949 ft.; 10¾-in. at 931 ft.
Humble O. & R. Co. No. 4 Gebhart, 200 ft. S of most southerly N line, 1,345 ft. E of most westerly W line, Wm. Perkins and C. W. Hahl Sur.
10¾-in. csg. at 915 ft.
Humble O. & R. Co. No. 1 Juergins, 359 ft. SN line, 466 ft. WE line, 377 ft. NS line of De Coux lease, J. House Sur.
Drlg. shale and lime 5,424 ft.
Humble O. & R. Co. No. 1 Dooley, 280 ft. N of S line, 388.7 ft. W of E line of lease, J. Pruitt Sur.
Top oil sand 5,547 ft.; 7-in. csg. 5,548 ft.; T.D. 5,562 ft.; I.P. 16 bbls. per hour, ¼-in. choke; T.P. 825 lbs.; C.P. 1,350 lbs.
Humble O. & R. Co. No. 2 Holderreith, 500 ft. E of W line, 466 ft. N of S line, C. N. Pillot Sur.
Top sand 5,544 ft.; T.D. 5,550 ft.; 7-in. csg. 5,540 ft.; I.P. 2 bbls. of oil and 81,287 ft. of gas per hour, ¼-in. choke; T.P. 1,975 ft.; C.P. 2,050 ft.
Sun Oil Co. No. 3 Metzler, 600 ft. N of S line, 466 ft. E of W line of middle SW cor. of 117.5-ac. lease, C. N. Pilot Sur.
Drlg. shale 5,490 ft.
Texas Co. No. 2 Hillegeist, 425 ft. E of W line of 199-ac. tract, J. House Sur.
Set sur. csg. 947 ft.

Mauritz—Jackson County

Shell Pet. Corp. No. 1-A T. N. Mauritz, 682 ft. S, 466 ft. W of NE cor. of 160-ac. lease, A. Kountz Sur.
T.D. 6,808 ft.; reaming at 6,685 ft.
Texas Pacific Coal & Oil Co. and Venza Oil Co. No. 1 J. M. Rosborough, 330 ft. each way out of NW cor. of 416-ac. lease of M.C. Sur. No. 37.
Abd. 6,103 ft.

Big Hill—Jefferson County

Stanolind O. & G. Co. No. 2-A Pipkin & Davis, 1,430 ft. SW of NE cor. of Pipkin & Davis lease along SE line of same and 50 ft. SE at right angles, William McFaddin Sur.
Coring shale 6,621 ft.
Stanolind O. & G. Co. No. 1-B Pipkin & Davis, 2,225 ft. from E line and 2,385 ft. from N line of survey, Wm. McFadden Sur.
T.D. 6,678 ft.; running 7-in. csg.

Fannett—Jefferson County

Blue Eagle Oil Co. No. 1 Junker, 50 ft. each way out of NW cor. of lease, W. H. Smith Sur.
T.D. 4,121 ft.; swabbing.
Gulf Prod. Co. No. 6 Junker, 920 ft. W along N line of 260-ac. tract from NE cor. and 580 ft. S at R/A, Wm. Smith Sur.
Drlg. shale at 1,015 ft.

Cleveland—Liberty County

Gulf Prod. Co. No. 12-C Kirby, 1,234 ft. N, 2,333 ft. E from NE cor. of J. Eldridge Sur.
Drlg. shale 4,753 ft.

Esperson—Liberty County

General Crude Oil Co. No. 23 Esperson, 550 ft. N along W line of survey from SE cor. of D. K. Kokernot Sur., thence 1,185 ft. E at right angles.
Rig up.
General Crude Oil Co. No. 1 Hlavaty, 467 ft. out of SE cor. of F. M. Gardner Sur.
T.D. 8,469 ft.; drill pipe stuck at 8,409 ft.; fishing.

Hankamer—Liberty County

Eastman-Ward No. 1 R. E. Lee, 115 ft. from N line of lease and 76 ft. W of west bank of White Bayou, Geo. Stengler Sur.
S.D. 2,707 ft.
Eljean Oil Co. No. 2 Ezzell, 600 ft. due W of No. 1, 130 ft. from N and S lines of Levi-Barrow Sur.
S.D. 4,346 ft.
Gulf Prod. Co. No. 2-A R. J. Weiser, 770 ft. W along S line from SE cor. of survey and 422 ft. at R/A, George Stingler Sur.
Moving in.

Hull—Liberty County

Gulf Prod. Co. No. 111 Phoenix, 1,893 ft. S along W line from NW cor., 1,625 ft. E at R/A, J. Devore League.
Drlg. sand 3,394 ft.
W. B. Flynn No. 8-B Able, 50 ft. S, 300 ft. W of NE cor. of old Humble 10-ac. tract.
S.D. 1,000 ft.
Republic Prod. Co.-Houston Oil Co. No. 156 Dolbear, 170 ft. NW of No. 90 and 250 ft. SW of No. 156, J. Devore League.
Drlg. shale 2,410 ft.

South Liberty—Liberty County

R. R. Lawrence No. 1 Vandeventer, 200 ft. SN line, 100 ft. EW line of 121-ac. tract, D. Winchey Sur.
Drlg. shale 3,510 ft.
W. S. Christian No. 1 Chambers.
S.D. 793 ft.

Markham—Matagorda County

Powers Prod. Co. No. 4 Myers, 225 ft. N of No. 2, 255 ft. EW line of lease, Blk. No. 1, Wm. Haddin Sur.
Location.

Van Vleck—Matagorda County

Skelly Oil Co. No. 1 Sally Johnson, 487 ft. W of E line, 395 ft. SN line of 27-ac. tract, M. Cummings Sur.
T.D. 7,484 ft.; top sand at 7,474 ft.; preparing to make D.S.T

Conroe—Montgomery County

Sun Oil Co. No. 28 Foster.
9⅝-in. csg. at 1,349 ft.
Sun Oil Co. No. 10 Keystone Mills.
Derrick.

Port Neches—Orange County

Texas Co. No. 11 Kuhn, 620 ft. N, 330 ft. E of SW cor. of 257.74-ac. tract, Mary E. Hall Sur.
Drlg. gumbo 2,480 ft.

Livingston—Polk County

Hawkeye Pet. Co. No. 1 Nelson, 330 ft. N of S line, 460 ft. E of W line of 360-ac. tract, A. Viesca Sur.
T.D. 4,243 ft.; 7-in. csg. 4,217 ft.; ran screen and liner and swabbed well dry; pulling screen and liner to core deeper.
Humble O. & R. Co. No. 21 Granbury-Smith, 532 ft. NW line, 1,327 ft. NE line of Sec. 11, A. Viesca Sur.
T.D. 4,195 ft.; top gas sand at 4,140 ft.; setting 7-in. csg.
Humble O. & R. Co. No. 16 Granbury, 1,399 ft. from NW and 466 ft. from NE lines of Block No. 11, A. Viesca Sur.
Location.
Ownby Drlg. Co. No. 5 Pratt.
T.D. 4,240 ft.; I.P. 381 bbls. per day, ¼-in. choke; T.P. 325 lbs.
Ownby-Shell Pet. Corp. No. 6 Pratt, 660 ft. S of No. 1, 330 ft. W from road, A. Viesca Sur.
Digging pits.
Ownby-Shell Pet. Corp. No. 4 Pratt, 466 ft. out of NW cor. of 197-ac. lease, A. Viesca Sur.
Drlg. shale 1,510 ft.
Sun Oil Co. No. 10 Pratt, 933 ft. W of No. 9, 466 ft. NSL of lease, A. Viesca Sur.
Rig up.

Coletto Creek—Victoria County

American Liberty Oil Co. No. 1 Camp, 330 ft. out of S cor. of 30-ac. lease, R. Manchola Sur.
Rig up.
Costa Oil Co. No. 1 Terrell, 990 ft. SWL, 330 ft. SEL of NE 125-acre tract, R Manchola Sur.
Abd. 2,911 ft.

Placedo—Victoria County

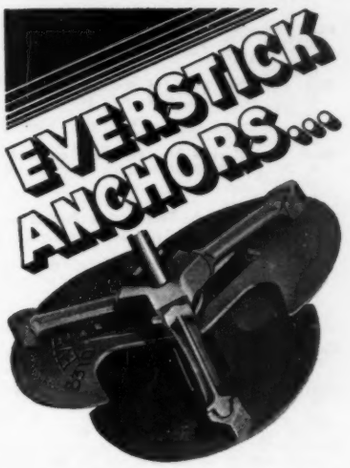
American Liberty No. 1 Gray, 3,960 ft. SWL, 500 ft. SEL of S.A.&M.G. Sur.
Rig up.
Barnsdall Oil Co. No. 2 J. M. Pickering et al, 330 ft. from R.R., 612 ft. from No. 2, offset to Smith & Gulf No. 1 Boehm, S.A.&M.G. Sur. No. 5.
Bldg. derrick.
Barnsdall-Felmont Oil Co. No. 1 Pickering and Roos, 330 ft. NE, 530 ft. SE of No. 3, S.A.&M.G. Sur. No. 5.
Drlg. shale 3,850 ft.
Barndall Oil Co. No. 2 Gray, 4,760 ft. SWL, 500 ft. SEL of S.A.&M.G. Sur. No. 8.
Drlg. shale and lime 4,585 ft.
Eastern Texas Pet. Co. No. 1-A Schovajsa, 50 ft. NW of Costa No. 1 Schovajsa, W. Ripley Sur.
T.D. 6,023 ft.; tested mud and slight show of gas; P.B. to 4,500 ft.; failed to sidetrack.
C. F. McGrew No. 1 Hadley, center of 20-ac. lot, S.A.&M.G. Sur., Sec. 9, Blk. 49, Lots 1 and 2.
Location.
Smith & Gulf No. 2 Wright, 330 ft. each way out of W cor. of lease, S.A.&M.G. Sur. No. 5.
T.D. 4,768 ft.; 7-in. csg. at 4,756 ft.
Sun Oil Co. No. 1 Schneider, 330 ft. from R.R., 330 ft. from SE line of Lot 132, NE offset to Sun No. 2 Marek, S.A.& M.G. Sur.
T.D. 4,772 ft.; 7-in. csg. 4,763 ft.; swbd.;
Westgate Oil Co. No. 2 Henderson & Pickering, 700 ft. NE, 320 ft. SE of Lot 125, S.A.&M.G. Sur., Wm. Rupley Sur.
Moving in.
Westgate Oil Co. No. 1 Muska, 330 ft. out of N cor. of 9.54-ac. tract, Lot 78, S.A. &M.G. Sur.
Moving in.
Westgate Oil Co. No. 1 Henderson and Pickering, 330 ft. each way out of SW cor. of Lot 76, S.A.&M.G. Sur.
T.D. 4,778 ft.; 7-in. csg. at 4,754 ft.; I.P. 5½ bbls. per hour, ¼-in. choke; T.P. 300 lbs.; C.P. 600 lbs.

Clay Creek—Washington County

Joe Pamgkol No. 2 Clapp, 300 ft. NE of No. 1, 450 ft. SW line, 150 ft. NW line of lease, N. Clay Sur.
Skidding derrick to location.
Sun Oil Co. No. 12 Clay, 1,050 ft. NW line, 150 ft. SW line of 218-ac. tract, 300 ft. SE of No. 11, J. F. Perry Sur.
Derrick.
Sun Oil Co. No. 12 Joiner.
Rig up.
Sun Oil Co. No. 11 Clay, 750 ft. NW line, 150 ft. SW line, 218-ac. tract, J. F. Perry Sur.
T.D. 1,464 ft.; swabbing.

Louise—Wharton County

Pure Oil Co. No. 3 McIntyre, 2,554 ft. NE and 466 ft. NW from S cor. of survey, Sec. 25, Morris and Cummings Sur.
Drlg. broken lime 2,488 ft.
Pure Oil Co. No. 5 Kountze, 330 ft. from



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SE line, 466 ft. from SW line, Morris and Cummings Sur.
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Pickett Ridge—Wharton County

Texas Co. No. 6-A Pierce, 660 ft. N, 58 deg. E, 751 ft. S, 32 deg. E from No. 2-A, I.&G.N. Sur. No. 39.
Drlg. gumbo and lime 2,292 ft.

Texas Co. No. 5-A Pierce, 1,320 ft. N, 58 deg. E, 660 ft. S, 32 deg. E from No. 3-A, I.&G.N. Sur. No. 36.
Abd. at 4,900 ft.

SOUTH LOUISIANA FIELDS

Anse La Butte—St. Martin Parish

T. D. Spell No. 1 Begenaud, Sec. 117-9s-5e.
T.D. 1,395 ft.; shale; 10¾-in. csg. at 434 ft.

Black Bayou—Cameron Parish

Shell Petroleum Co.'s No. 29 Watkins, 2,900 ft. E, 650 ft. S of NW cor. of Sec. 17-12s-12w.
13-in. csg. at 1,308 ft.; W.O.C.

Shell Petroleum Co.'s No. 30 Watkins, 3,250 ft. W, 920 ft. S of NE cor. of Sec. 18-12s-17w.
Rig up.

Shell Pet. Corp.'s No. 28 Watkins, 1,928 ft. S, 925 ft. E of NW cor. of Sec. 17-12s-12w
T.D. 4,389 ft.; running 7-in. csg.; comp.; no gauge.

Shell Pet. Corp.'s No. 26 Watkins, 3,380 ft. W, 190 ft. S of NE cor. of Sec. 18-12s-12w.
Location.

Caillou Island—Terrebonne Parish

Texas Co.'s No. 25 State, Sec. 17-23s-20e.
Drlg. shale 3,952 ft.

Texas Co.'s No. 26 State, 172 ft. from S line, 1,796 ft. from W line, Sec. 17-23s-20e.
Drlg. sandy shale 3,827 ft.

Tepetate—Acadia Parish

Continental Oil Co.'s No. 1 Kern, 1,610 ft. S, 660 ft. W of SE cor. of Sec. 29-7s-2w
Drlg. shale and lime 4,405 ft.

Continental Oil Co.'s No. 1 Macabee, 990 ft. N, and 660 ft. E of SW cor. of 160-ac. tract, Sec. 22-7s-2w.
Drlg. shale and lime 7,840 ft.

Continental Oil Co.'s No. 1 Macantel, 990 ft. S, 660 ft. W of NE cor. of Sec. 29-7s-2w.
Coring sand 3,234 ft.

Darrow—Ascension Parish

Humble O. & R. Co. No. 5 Gumble, 964 ft. NE from S cor. of section at R/A to SW line of Sec. 33-10s-2e.
16-in. csg. at 245 ft.; W.O.C.

Humble O. & R. Co. No. 9 Gumble, 2,445 ft. NW of SE cor. of Sec. 30-10s-2e, 540 ft. NE at R/A.
Rig up.

Humble O. & R. Co.'s No. 8 Gumble, 505 ft. SW of No. 6, 1,147 ft. SE of No. 2, Sec. 31-10s-2e.
T.D. 5,636 ft.; I.P. 30.7 bbls. per hour, ¾-in. choke; T.P. 865 lbs.; C.P. 875 lbs.

Sorrento—Ascension Parish

Athens Oil Co.'s No. 1 United Land, 400 ft. W of No. 2, Sec. 15-10s-4e.
Location.

Cameron Meadows—Cameron Parish

Burton Sutton Oil Co.'s No. 10 School Land, Sec. 16-14s-13w.
Drlg. shale 615 ft.; 18⅝-in. csg. at 67 ft.

Burton Sutton Oil Co.'s No. 4 School Land, Sec. 16-14s-13w.
Derrick.

Choctaw Dome—Iberville Parish

Standard Oil Co.'s No. 8 Myrtle Grove Wilburt, 500 ft. N, 725 ft. W of SE cor. of SW¼ of Sec. 52-9s-11e.
Rig up.

Standard Oil Co.'s No. 6 Gay, 400 ft. N, 50 ft. W of No. 5, Sec. 52-9s-11e.
Drlg. canal.

Zeni Oil Co.'s No. 1 Schwing, Sec. 19-17s-24e.
T.D. 6,162 ft.; P.B. to 1,500 ft.; S.D. 4,500 ft.

Dog Lake—Terrebonne Parish

Texas Co. No. 13 Dog Lake, 2,177 ft. E and 1,385 ft. S of NW cor. of Sec. 24-21s-16e.
T.D. 7,125 ft.; top oil sand 7,101 ft.; prepare to set csg.

Four Isle—Terrebonne Parish

Texas Co.'s No. 6 State, 1,923 ft. S, 2,100 ft. W of NE cor. of Sec. 21-21s-16.
Drlg. shale and lime 7,495 ft.

Texas Co.'s No. 8 La. Land & Expl. Co. 2,177 ft. E, 1,385 ft. S of NW cor. Sec 24-21s-16e.
T.D. 7,125 ft.; 7⅝-in. csg. at 7,100 ft.; W.O.C.

Texas Co.'s No. 5 State, 885 ft. S, 2,327 ft E of NW cor. of Sec. 24-21s-16e.
Location

Garden Island Bay—Plaquemines Parish

Texas Co.'s No. 17 State, 1,970 ft. N, 1,445 ft. E of SW cor. of Sec. 27-22s-23e.
Drlg. sand 3,254 ft.

Texas Co.'s No. 18 State, 1,288 ft. N, 2,218 ft. E of SW cor. of Sec. 27-22s-23e.
Location.

Texas Co.'s No. 12 State, 3,291 ft. S and 1,694 ft. W of NE cor. Sec. 107-23-32.
Rig up

Gillis—Calcasieu Parish

Echo Oil Co.'s No. 1 Powers, Sec. 14-9s-8w.
Drlg. shale 5,174 ft.

Union Sulphur Co.'s No. 4 Castle, 330 ft. N, 1,650 ft. W of SE cor. of NE¼ of Sec. 14-9s-8w.
Drlg. shale 3,033 ft.

Union Sulphur's No. 14 State, 1,462 ft. N, 69 ft. W of SE cor. NE¼ Sec. 11-9s-8w.
Location.

Union Sulphur's No. 4 Powell, 585 ft. S, 1,621 ft. E of NW cor. of Sec. 12-9s-8w.
Drlg. shale and lime 3,340 ft.

Union Sulphur Co.'s No. 7 State, 1,316 ft. N, 199 ft. E of SW cor. Sec. 12-9s-8w.
Location.

Union Sulphur Co.'s No. 12 State, 2,310 ft. N, 1,650 ft. E of SW cor. of Sec. 12-9s-8w.
T.D. 7,160 ft.; pulled screen and liner; cmtd. through perforations 7,154-57 ft.; W.O.C.

Union Sulphur Co.'s No. 13 State, 1,464 ft. E, 2,088 ft. N of SW cor. of Sec. 12-9s-8w.
Location.

Gueydan—Vermillion Parish

Pure Oil Co.'s No. 6 Alliance Trust, 667 ft E, 1,787 ft. S line of lease, Sec. 34-11s-1w.
T.D. 9,545 ft.; milling on csg.

Hackberry—Cameron Parish

Browning Oil Co.'s No. 1 Ellender, Sec. 27-12s-10w.
T.D. 3,356 ft.; 6⅝-in. csg. at 3,340 ft.; W.O.C.

Gulf Refg. Co.'s No. 19 Erwin, 1,315 ft. W along S line of the SE cor. of Sec. and 960 ft. at R/A to S line, Sec. 12-12-10w.
T.D. 5,183 ft. in shale.

Romac Oil Co.'s No. 2 Vincent, Sec. 29-12s-10w.
Drlg. salt 4,215 ft.

Stanolind O. & G. Co.'s No. 10-B Gulf Land, Sec. 14-12s-10w.
Drlg. shale and lime at 4,816 ft.

Stanolind O. & G. Co.'s No. 9 Gulf Land, 1,650 ft. S, 750 ft. W from NE cor SW¼ of Sec. 14-12s-10w.
Drlg. water sand 4,576 ft.

Texas Co.'s No. 11 State, 961 ft. E, 152 ft. N of NE cor. of Sec. 13-12s-9w (workover).
T.D. 6,550 ft.; preparing to make D.S.T.

Texas Co.'s No. 18 State, N 13 deg. 20 ft. W, 4,000 ft. from No. 13, Sec. 44-12s-9w.
Drlg. sand rock 5,541 ft.

Iowa—Jefferson Davis Parish

Shell Pet. Corp.'s No. 19 Heyd, 1,200 ft. S, 990 ft. W of NE cor. of NW¼ of Sec. 13-9s-7w.
Drlg. shale 3,013 ft.

New Iberia—Iberia Parish

Canal Oil Co.'s No. 2 Sabatier et al, 200 ft. NE along lease line from W cor. of Canal-Bernard lease in Sec. 54, thence NW at right angles of Sec. 53-12s-7e.
T.D. 2,802 ft.; 7-in. csg. 2,750 ft.; rigging up to pump.

Harrison & Abercrombie's No. 4 Schwing, Sec. 55-12s-7e.
Drlg. shale 7,010 ft.

Kites Oil Co.'s No. 1 Sealy, Sec. 56-12s-7e
T.D. 1,002 ft.; 10¾-in. csg. at 1,000 ft.

Jennings—Acadia Parish

Abshire-Boyard's No. 3 Clemonds, 3,800 ft. N, 95 ft. E of SW cor. Sec. 46.
T.D. 2,341 ft.; I.P. 15 bls. per day.

Yount Lee Oil Co.'s No. 15 Houssiere-Latriele.
Drlg. sand, shale and shells at 6,930 ft.

Lafitte—Jefferson Parish

Texas Co.'s No. 2 Rigolet Co-operative Co., 467 ft. S, 1,194 ft. W of NE cor. Sec. 30-19s-24e.
Drlg. shale 5,630 ft.

Lake Barre—Terrebonne Parish

Texas Co.'s No. 34 State, Sec. 40-21s-19e.
T.D. 4,014 ft.; P.B. and S.T. at 2,800 ft.; drlg. shale 3,727 ft.

Lake Pelto—Terrebonne Parish

Texas Co.'s No. 14 State, Sec. 8-22s-18e
T.D. 6,712 ft.; sidetracked at 5,837 ft.; drlg. sandy shale 5,949 ft.

Leesville—LaFourche Parish

Texas Co.'s No. 40 Leesville, Sec. 27-21s-22e.
Drlg. sand rock at 3,702 ft.

Texas Co.'s No. 39 Leesville, 125 ft. S, 1,481 ft. W of NE cor. SE¼ of Sec. 27-21s-22e.
T.D. 2,875 ft.; top cap rock at 2,804 ft.; plugging back.

Texas Co.'s No. 25 Leesville.
Derrick.

Texas Co.'s No. 23 Leesville, 975 ft. S, 1,975 ft. W of NW cor. of SW¼ Sec. 26-21-22.
Derrick.

Lockport—Calcasieu Parish

Magnolia Pet. Co.'s No. 10 Farquhar, 200 ft. S, 200 ft. E of NW cor. SE¼ SE Sec. 5-10s-9w.
T.D. 7,000 ft.; ran electrical coring test; waiting on orders.

Port Barre—St. Landry Parish

Pan American Prod. Co.'s No. 1 Haas & Hierch, 1,118 ft. NW along property line from E cor. of lease, thence SW at right angles 450 feet.
T.D. 4,888 ft.; oil sand; made 7-min. D.S.T. from 4,799-4,888 ft.; tested 2,261 ft. of oil and sand; to run csg.

Roanoke—Jefferson Davis Parish

Glassel et al's No. 1 La. Irrigation Mill Co., 695.5 ft. E and 475 ft. N of SW cor. Sec. 1-9s-4w.
Location.

Humble O. & R. Co.'s No. 4 Kratzer, 75 ft. SN line, 375 ft. WE line of Sec. 11-4w-9s.
T.D. 8,688 ft.; cored broken sand and shale showing oil from 8,666-88 ft.; set 7-in. csg. at 8,670 ft.; W.O.C.

Humble O. & R. Co.'s No. 3 Kratzer, 1,333 ft. NS line, 440 ft. WE line of M. Kratzer 120-ac. tract, Sec. 11-9s-4w.
T.D. 8,887 ft.; P.B. to 6,800 ft.; W.O.C.

St. Martinville—St. Martin Parish

Coastal Plains Oil Corp. No. 1 E. D. Breaux, 236.5 ft. from W line, 201 ft. from N line of Sec. 57-11s-6e.
Location.

Coastal Plains Oil Corp. No. 1 A. L. Domengeaux, 330 ft. from W line, 120.5 ft. from N and S lines of 50-ac. Arpent tract, Sec. 57-11s-6e.
Location.

Tide Water Oil Co. No. 2 Smedes, 660 ft S, 660 ft. W of NW cor. of Smedes tract, Sec. 57-11s-6e.
Drlg. 450 ft.

Sweet Lake—Calcasieu Parish

Pure Oil Co.'s No. 13 Yount Lee, 800 ft. S, 66 deg. 42 ft. E of No. 12, Sec. 18-13-13.
T.D. 7,700 ft.; reaming at 7,154 ft.

Sulphur—Calcasieu Parish

Union Sulphur Co.'s No. 815 fee, Sec. 29-9s-10w.
Drlg. shale at 2,875 ft.

Union Sulphur Co.'s No. 816 fee, Sec. 29-9s-10w.
Drlg. shale and lime 4,510 ft.

Union Sulphur Co.'s No. 817 fee, Sec. 29-9s-10w.
Drlg. water sand 2,905 ft.

Starks—Calcasieu Parish

Gulf Prod. Co.'s No. 38 Lutcher Moore, Sec. 19-19s-12w.
Drlg. sand rock 3,660 ft.

White Castle—Iberville Parish

Shell Pet. Corp.'s No. 2 Shingle, 250 ft. S, 275 ft. E of NW cor. of Shingle lease.
Drlg. sand 3,050 ft.

Miscellaneous Wildcats

TEXAS

Austin County

T. F. Wood et al's No. 1 Trenchman, 336 ft. from SE line of a 50-ac. tract, James Cummins Sur.
S.D. 750 ft.

Brazoria County

British-American Oil Prod. Co.'s No. 1 W R. Nash, 1,191 ft. E of W line, 335 ft S of N line of Thos. Aisberry League.
Made D.S.T. from 4,125-42 ft.; no results; will core to 4,147 ft. and run screen; no report.

Gulf Prod. Co.'s No. 1 Wilkes & Smith, 5,510 ft. W along N line of 250-ac. tract from NW cor. of 211-ac. tract, thence 990 ft. S at R/A James Hall Sur.
T.D. 6,217 ft. in sand.

R. R. Osborne's No. 1 John L. Jones, 330 ft. each way out of N cor. of S½ of Lot 7, Blk. 1, J. C. Smith Sur.
S.D. 20 ft.

Texas Co.'s No. 2 Freeport Sulphur Co., Conception Areola Sur.
Drlg. sandy shale 3,591 ft.

Burleson County

Carl Dyer et al's No. 1 C. W. Young, 750 ft. EW line, 330 ft. SN line of 140-ac. tract, John Byrd Sur.
Drlg. shale 1,150 ft.

Red Bank Oil Co.'s No. 1 Q. B. Crain, 330 ft. from N and W lines of 140-ac. tract and W. C. Pierce Sur.
Location.

Chambers County

Black Gold Oil Co.'s No. 1 Borrow, 6,433 ft. NW of the SE line, 2,080 ft. SW of NE line, Ruben Borrow Sur.
Drlg. shale 890 ft.

South Gulf Oil Co.'s No. 1 J. T. White, 1,653 ft. from E line, 466 ft. from S line of 1,476-ac. tract, James McGahey Sur.
Location.

Stanolind O. & G. Co.'s No. 1 A. B. Middleton, 426 ft. from W line, 466 ft. from S line of A. D. Middleton 120-ac. tract, Shadrock Burney Sur.
Drlg. sandy shale 5,656 ft.

Calhoun County

Continental Oil Co. No. 2-A American Realty Co., 150 ft. NE of No. 2, Pedro Garcia Sur., Lot 1, Blk. "C."
T.D. 1,501 ft.; 16-in. csg. at 1,474 ft.; W.O.C.

Humble O. & R. Co.'s No. 1 Mrs. Eliza Welder, 5,685 ft. S, 55 deg. W from a part of intersection of St. L.B.&W. R.R. Sur. and NW line of Jose Maria Rios Sur., 7,210 ft. S, 35 deg. E at R/A Gardner Smith Sur.
Drlg. shale 2,802 ft.

Colorado County

Coyle & Concord's No. 1 fee, 550 ft. from N line, 1,950 ft. from E line of Sec. 44 I.&G.N. Sur.
Drlg. shale 3,810 ft.

Fort Bend County

Bunte O. & G. Co.'s No. 1 A. P. George, 4,132 ft. NW along SW line from S cor. of survey, thence due N 1,320 ft., thence due E 2,970 ft., thence due N 330 ft. to location, approx. 2,100 ft. NW along SW line from S cor. of survey and 2,750 ft. NE at right angles, J. Jones Sur.
Abd. 6,010 ft.

Galveston County

Sun Oil Co.'s No. 1 J. D. Hughes, 1,666.9 ft. NW line, 1,212 ft. NE line of W. M. C. Baker Sur.
Drlg. lime 3,926 ft.

Grimes County

Dr. Marshall et al's No. 1-B Todd, 300 ft. from E line and 175 ft. from N line of 150-ac. tract in extreme NW cor. of county (25 ft. N of No. 1).
T.D. 2,826 ft.; P.B. to 2,818 ft.; well flowing brackish water with small amount of gas through ¼-in. choke.

Harris County

A. C. Hill's No. 1-A Swilley 5,436 varas E of W line and 1,960 varas N of S line of Sur.-C. Victor Blanco Sur.
Rig up.

A. C. Hill's No. 1-B Swilley 6,141 varas E of W line, 1,960 varas N of S line of Sur., center of 200-ac. lease, 365 varas S of N line and 775 varas W of E line of lease, Victor Blanco Sur.
S.D. 4,469 ft.; top Dis. 4,020 ft.; top Het. 4,285 ft.

E. E. Young, tr.'s No. 2 P. S. Griffith, 1,476 ft. S of N line, 2,030 ft. E of W line of A. R. Bodman Sur.
S.D. 4,485 ft.; waiting on csg.

Hardin County

Frank Beaudoin et al's No. 1 Walton, A. L. Lancaster Sur.
S.D. 1,900 ft.

Houston County

Zeni Oil Co.'s No. 1 Houston County Timber Co., I.&G.N. Sur.
Coring 6,193 ft.

Jackson County

L. A. Douglas' No. 1 I. N. Mitchel, 750 ft. W, 150 ft. N from NW cor. of A. F. Mitchell 100-ac. tract, Lolita area, S. F. Austin Sur.
10¾-in. csg. at 650 ft.; W.O.C.

Jefferson County

Humble O. & R. Co. No. 1 Mrs. Effie Willerton, 1,000 ft. WE line of Sec. 1, and midway between N and S lines of a 25-ac. tract, H.T.&B. Sur., Sec. 1-A38. Bldg. derrick.

Humble O. & R. Co.'s No. 1 R. C. Miller et al, 1,399 ft. S, 460 ft. W from NE cor. of Blk. No. 7, Garden Villas Subd., approx. 6,650 ft. WE line, 5,500 ft. NS line of survey, A. Savery Sur.
Abd. 6,470 ft.

Sun Oil Co.'s No. 1 Herbert & Braussard, 6,890 ft. NW along SW line and 660 ft. NE at R/A to SW line, B. Blackman Sur., Abst. No. 2.
Shale 5,282 ft.; 9⅝-in. csg. 5,310 ft.; Fishing for cutting tool.

Tatum and Pendergrass No. 1 B. W. Owens, 160 ft. E of W line and 325 ft. S of N line of Lot No. 3, Blk. 9, Range 9, Port Arthur Land Co. subdv., Joseph Grigsley Sur.
Reaming 400 ft. off bottom.

Matagorda County

Continental Oil Co.'s No. 1 Feife, J. S. Criswell Sur., 3,000 ft. E of W line, 1,800 ft. N of S line of survey.
T.D. 7,485 ft.; 8⅝-in. csg. twisted off drill collar and bit at 7,516 ft.; sidetracked and drilled to 7,541 ft.

Hammon Exploration Co.'s No. 1 Cleveland, 330 ft. NS line, and WE line of 66-ac. tract, E. Hall Sur.
Drlg. shale 7,306 ft.

Helmerich & Payne's No. 1 Hawkins, 850 ft. S, 70 deg. W of Cockburn Oil Co.'s No. 6 Hawkins.
T.D. 6,772 ft.; setting 6⅝-in. csg.

Horace M. Smith, Inc.'s No. 1 Wadsworth ranch, 150 ft. out of S cor. of Lot No. 3, S. R. Fisher Sur.
T.D. 8,853 ft.; flowing from 4 to 5 bbls. per hour every 3 hrs.

Sterling O. & R. Co.'s No. 1 Baer Estate, 5,274 ft. SW of S cor. of Van Dorn and Bates Sur., 400 ft. NW at right angles in Samuel Hart Sur.
T. D. 1,920 ft.; 10¾-in. csg. set at 1,830 ft.; W.O.C.

Sun Oil Co.'s No. 1 Craig, 1,546.9 ft. SW from N cor. along NW line of lease and survey, thence 157.3 ft. SE at right angles in Thomas Williams Sur.
Drlg. salt 742 ft.

Montgomery County

W. C. Battaile's No. 1 Caswell, 2,490 ft. from E line, 150 ft. from S line of survey, David Davis Sur.
10-in. csg. 350 ft.

W. M. S. Thomson's No. 1 Scott, 1,191 ft. SN line, 482 ft. WE line, 1,623 ft. EW line of the F. A. B. Wheeler Sur.
T.D. 3,674 ft.; P.B. to 2,486 ft.; W.O.C.

Orange County

Blue Line Oil Co.'s No. 1 J. E. Peet Richard, 900 ft. W of E line and 150 ft. S of N line of most easterly NE cor. of 138-ac. tract, Bailou Sur.
Drlg. shale 2,330 ft.

Coker Oil Co.'s No. 1 S. T. Mansfield, 500 ft. S, 500 ft. W from NE cor. of 80-ac. tract, J. W. Hall Sur.
S.D. 1,280 ft.

Smith & Ellis' No. 1 Pell.
T.D. 2,095 ft.; changing rigs.

Refugio County

Cecil Hagen et al's No. 1 Edith Clarkson, 1,736 ft. from N line, 3,320 ft. from E line of J. Coughlin Sur.
Location.

San Jacinto County

Cockburn Oil Corp.'s No. 1 H. H. Lockin, 1,214 ft. W of E line, 295 ft. S of N line of H. H. Lockin 1,964-ac. tract, W. M. Hayes Sur.
Abd. 5,319 ft.

Darby-Jones-McBee, Drlg. Co.'s No. 1 Bennett D. Beer Sur.
Abd. 3,500 ft.

John Deering et al's No. 1 Randolph, 330 ft. S of center of N line of Tract 7 of the Randolph Sud., V. Flores Sur. Location.

J. E. Hooper et al's No. 1 R. B. Love, 475 S of N line, 2,000 ft. W of E line, 177-ac. tract, Drury McGee Sur.
10¾-in. csg. 518 ft.

Trinity County

Boone Bros.' No. 1 A. Williamson, 250 ft. SN line and EW line of lease of 60-acre tract and survey, 10 miles N of Trinity, B.B.B.&C. Sur. A-111.
Rig up.

Victoria County

Heep Oil Corp.'s No. 1 J. J. Welder, 300 ft. SW line, 750 ft. from SE line of Nursery area, Phillip Graves Sur.
Drlg. water well.

Shell Pet. Corp.'s No. 2 McFadden, 11,250 ft. from NE cor. along N line, 2,310 ft. S of N line at R/A.
Coring 3,543 ft.

Welder Oil & Gas Co.'s No. 1 Patrick, 3,230 ft. SW, 1,925 ft. NW of most easterly cor. of 1,730-ac. tract, Felipe Dem-mit Sur.
Drlg. shale 4,650 ft.

Walker County

Bradley et al's No. 1 Trinity Lumber Co., N 45 deg., E 1,205 ft., N 45 deg., W 400 ft. from S cor. of J. C. Harrison 320-ac. Sur.
Moving in derrick.

Wharton County

Pure Oil Co.'s No. 1 Paige, 1,397 ft. NE and 467 ft. SE from W cor. of 159.27-ac lease, James Pirie Sur.
Preparing to core at 6,721 ft.; tested salt water, slight show of gas.

Sterling Oil & Ref. Co.'s No. 1 Frank Janik Sr., 1,859 ft. from N line, 467 ft. W from SE cor. of Janik tract, Johathan Scott Sur.
T.D. 8,667 ft.; 5-in. csg. at 7,831 ft.; P.B. to 7,875 ft.; perforated liner from 7,832-47 ft.

Texas Co.'s No. 1-C Pierce Est., 12,225 ft. W along S line of the W. M. Pettus Sur., 3,400 ft. N in the John Caldwell League.
Drlg. sand and shale 6,634 ft.

SOUTH LOUISIANA

Acadia Parish

Superior Oil Co.'s No. 1 Adam Smith, 334 ft. S, 35 deg. 35 min. E from NE cor. of 28.93-ac. tract, Sec. 47-7s-1e.
Drlg. sandy shale 6,844 ft.

Beauregard Parish

Richardson & Martin's No. 1 Southwest Lbr. Co.
Location.

Calcasieu Parish

Fred Oil Co.'s No. 2 Faizt, 262 ft. E and 8 ft. S of NW cor. SE¼ Sec. 26-8s-10w.
S.D. 4,051 ft.

Lahay & Lambert et al's No. 1 Landry, 1,369 ft. southwesterly from NW cor., 2,600 ft. southwesterly from NE cor. of NW¼ of SE¼ of Sec. 23-11s-10w.
Spudded 28 ft. and S.D.

Wheeler Oil Corp.'s No. 1 School Lot, 1,703 ft. E, 1,325 ft. N of SW cor. Sec. 16-9s-7w.
S.D. 7,210 ft.

Cameron Parish

Magnolia Pet. Co.'s No. 1 J. B. Broussard, 350 ft. E and S, out of NW cor. of the SW¼ of SE¼ of Sec. 13-12s-9w.
5-in. csg. at 9,499 ft.; perforated csg. 9,366-78 ft.; tested 49 stands of salt water; P.B. and perforated csg. from 9,239-50 ft.; tested salt water.

Pan American Prod. Co. No. 1 Lutcher-Moore, 17,090 ft. W and 4,208 ft. N of SE cor. Sec. 32-14s-11w.
Drlg. sand and gravel 148 ft.

Steinberger Pet. Co.'s No. 1 Drew, 330 ft. out of NW cor. NE¼ of Sec. 26-10s-11w. Location.

Evangeline Parish

J. E. Ladue's No. 4 Vidrien, Sec. 34-3-3.
S.D. 1,635 ft.

Sparks-Mitchell and Jacobson's No. 1 Vidrine, 1,114 ft. S, 1,060 ft. W of NE cor. Sec. 47-4s-2e.
S.D. 1,635 ft.

East Feliciana Parish

Thompson Creek Oil Co.'s No. 1 Fannie Noland, 2,600 ft. E and 1,580 ft. N of SW cor. Sec. 70.
S.D. 1,589 ft.

Iberia Parish

Jefferson Lake Oil Co.'s No. 1 State, Twp 12s-5e
T.D. 8,545 ft.; P.B. from 8,300 ft. to 7,882 ft. and sidetracked; drlg. shale 8,043 ft.

Meade Oil Co.'s No. 1 Hamilton, near town of Loze, in the NW cor. of parish, Sec. 38-12-5.
S.D. 200 ft.

Texas Co.'s No. 1 State Fausse Point.
Drill stem stuck at 6,400 ft.; fishing.

Jefferson Davis Parish

J. K. Lewis' No. 1 Lockmoore, 150 ft. N and W of SE cor. NW¼ of Sec. 32-7-6.
Drlg. shale 4,175 ft.

Shell Pet. Corp.'s No. 1 Lacassan, 990 ft. N, 1,980 ft. E of SW cor. of Sec. 20-11s, 5w.
Coring limestone 7,514 ft.

LaFourche Parish

Coastal Oil Co.'s No. 2 Constantine, 1,476 ft. N, 809 ft. E of SW cor. Sec. 26-21-22e.
Location.

St. Bernard Parish

Emerald Pet. Corp.'s "Shell Beach Properties" No. 1, on S edge of Bayou Louis, Sec. 31-13s-15e.
T.D. 7,385 ft.; hole caved in while S.D. at 5,480 ft.; cemented 7-in. csg. at 5,480 ft.

St. Mary Parish

Herton Oil Co.'s No. 1 Roame, 1,386 ft. N, 688 ft. E, SW cor. of Lot 13, Sec. 38-13s-9e.
T.D. 6,912 ft.; cored sand and shale with oil and gas shows.

St. Martin Parish

Texas Co.'s No. 1 State Lake, 5,180 ft. E. 350 ft. N of SW cor. of Sec. 10-10s-9e.
Drlg. shale 6,347 ft.

Plaquemines Parish

Lo-Tex Explin. Co.'s No. 1 Hero Plantation, Sec. 72-14s-24e.
5,343 ft.; fishing at 1,827 ft.

Southern Sulphur Co.'s No. 1 Manhattan Fruit Co.
Drlg. shale 3,157 ft.

Rapides Parish

Amerada Pet. Corp.'s No. 1 Wells Land Co., 490 ft. from W line, 2,450 ft. from S line of Sec. 53-1s-2e.
T.D. 6,837 ft.; P.B. to 5,725 ft.; perforated csg. with 10 holes from 5,705-10 ft.; flowed 141 bbls. oil in 22 hrs., ¼-in. choke; testing.

St. Tammy Parish

Danciger O. & R. Co.'s No. 1 Holdsworth, C NW¼ SE¼ Sec. 24-8s-14e.
Cored from 3,995-4,000 ft.; strong odor of oil.

Vermillion Parish

Delcambre & Shelton's No. 1 Adam Delcambre, south degrees E, 825 ft. from most northerly cor. of irregular Sec. 63-17-5.
S.D. 2,704 ft.

Terrebonne Parish

Dulac Oil Co.'s No. 1 Bourg, Sec. 10-20-17e.
S.D. 4,072 ft.

Shell Pet. Corp.'s No. 1 Realty Operators, 2,000 ft. due S of E cor. of triangular Sec. 76, Sur. 103. 17s-17e.
Coring shale 4,096 ft.

IMPORTANT WELLS AND NORTHERN CALIFORNIA WILDCATS

Company, well and location—	S.T.R.	Depth	Status
Shell Oil Co., No. 10 Capitan, Santa Barbara Co.	5- 4-30	1,032	sd. sh. drlg.
General Petroleum, No. 15 Capitan, Santa Barbara Co.	32- 5-30	323	suspended
General Petroleum, No. 16 Capitan, Santa Barbara Co.	5- 4-30	....	bldg. rig
Shell Oil Co., No. 2 Goleta, Santa Barbara Co.	10- 4-29	3,819	suspended
Honolulu Oil Corp., No. 9 Elwood, Santa Barbara Co.	tideland	4,583	redrlg. 4,577
Barnsdall-Rio Grande, No. 12 Elwood, Santa Barbara	15- 4-29	6,703	redrlg. 5,420
Barnsdall-Rio Grande, No. 6 Elwood, Santa Barbara	15- 4-29	3,481	redrlg. 3,275
Barnsdall-Rio Grande, No. 2 Elwood, Santa Barbara	15- 4-29	6,492	suspended
Bankline Oil Co., No. 10 Elwood, Santa Barbara Co.	tideland	3,581	gr. sd. drlg.
Pacific Western, No. 16 Elwood, Santa Barbara Co.	tideland	2,105	redrlg. 2,977
Spalding, Caroline, No. 13 Elwood, Santa Barbara Co.	tideland	....	bldg. fdn.
Field, O. C., No. 1 Santa Maria, Santa Barbara Co.	28-10-33	2,916	suspended
Freeman, M. J., No. 1 Purisima, Santa Barbara Co.	11- 7-33	1,450	suspended
Fairview Oil Co., No. 1 Purisima, Santa Barbara Co.	18- 7-23	3,841	deepening
Mar Monte Oil Co., No. 1 Summerland, Santa Barbara	16- 4-26	1,221	bailing
Santa Barbara Oil, No. 1 Carpinteria, Santa Barbara	29- 4-25	565	cleaning out
Dietzman, Julius, No. 1 Carpinteria, Santa Barbara	8- 4-25	....	rigged up
Las Posas Pet., No. 1 Las Posas, Ventura Co.	22- 3-20	6,116	suspended
Union Oil Co., No. 1 Bardsdale, Ventura Co.	12- 3-20	5,296	form. test
Monticello Oil Co., No. 1 Bardsdale, Ventura Co.	12- 3-20	4,011	suspended
Duke Oil Co., No. 1 Bardsdale, Ventura Co.	7- 3-19	....	bldg. rig
Supreme Oil Co., No. 1 Sespe, Ventura Co.	1- 4-20	725	cleaning out
Bankline Oil Co., No. 1 Sespe, Ventura Co.	36- 5-20	985	red sh. drlg.
Nelson & Co., No. 1 Sespe, Ventura Co.	28- 4-19	941	hd. sd. drlg.
The Texas Co., No. 1 Fillmore, Ventura Co.	29- 4-19	5,998	hd. sh. drlg.
Laying & Jacobs, No. 1 Shiells Canyon, Ventura Co.	32- 4-19	1,006	cleaning out
El Rancho Oil Co., No. 1 South Mountain, Ventura Co.	9- 3-19	1,110	suspended
Bankline Oil Co., No. 2 South Mountain, Ventura Co.	3- 3-19	....	bldg. rig
Hull, James, No. 1 Susana, Ventura Co.	2- 2-18	1,387	hd. sh. drlg.
Bolsa Chica Oil Co., No. 1 Temescal, Ventura Co.	4- 4-18	2,931	O.S. drlg.
Ventura Expl. Co., No. 1 Saticoy, Ventura Co.	30- 3-22	7,073	testing
Prop. Service Corp., No. 1 Lloyd, Ventura Co.	24- 3-23	9,562	P.B. 9,375
General Pet., No. 1 Oxnard, Ventura Co.	26- 2-23	7,625	redrlg. 5,796
General Pet., No. 3 Rincon, Ventura Co.	tideland	2,895	gr. sd. drlg.
Honolulu Oil Corp., No. 2 Rincon, Ventura Co.	tideland	2,273	redrlg. 2,197
Continental Oil Co., No. 2 Ojai, Ventura Co.	13- 4-23	....	rigging up
Continental Oil Co., No. 5 San Miguelito, Ventura Co.	15- 3-24	2,561	hd. sh. drlg.
C. C. M. Oil Co., No. 1 San Miguelito, Ventura Co.	23- 3-24	7,906	P.B. 7,260
Standard Oil Co., No. 1 Lost Hills, Kern Co.	2-26-20	5,824	recmtd. 5,766
Cumberland Oil Co., No. 1 Devil's Den, Kern Co.	17-26-18	3,540	suspended
Belmac Drlg. Co., No. 1 McKittrick, Kern Co.	22-29-21	4,387	hd. sd. drlg.
Belmac Drlg. Co., No. 2 McKittrick, Kern Co.	21-29-21	498	suspended
General Pet. Co., No. 1 South Belridge, Kern Co.	30-28-21	11,377	suspended
Standard Oil Co., No. 3 South Belridge, Kern Co.	36-27-20	8,050	hd. sh. drlg.
Standard Oil Co., No. 4 North Belridge, Kern Co.	36-27-20	....	bldg. rig
Belridge Oil Co., No. 48-35 North Belridge, Kern Co.	35-27-20	4,865	sd. sh. drlg.
Belridge Oil Co., No. 18-35 North Belridge, Kern Co.	35-27-20	....	bldg. rig
Belridge Oil Co., No. 6-1 North Belridge, Kern Co.	1-28-28	....	bldg. rig
Continental Oil Co., No. 6 North Belridge, Kern Co.	36-27-20	7,730	cleaning out
Union Oil Co., No. 20 North Belridge, Kern Co.	36-27-20	8,386	sd. sh. drlg.
Beck, Albert, No. 1 North Belridge, Kern Co.	35-28-20	650	sd. sh. drlg.
Ohio Oil Co., No. 1 Maricopa Flats, Kern Co.	11-11-22	6,872	sd. sh. drlg.
Woods & Bailey, No. 1 McFarland, Kern Co.	16-26-26	2,490	suspended
Standard Oil Co., No. 1 Delano, Kern Co.	1-25-23	2,455	gas; shut in
Standard Oil Co., No. 2 Delano, Kern Co.	1-25-23	3,256	gas; shut in
Standard Oil Co., No. 4 Delano, Kern Co.	34-24-23	2,460	gas; shut in
Standard Oil Co., No. 5 Delano, Tulare Co.	33-24-23	2,466	gas; shut in
Standard Oil Co., No. 6 Delano, Kern Co.	1-25-23	....	bldg. rig
Trico Oil & Gas Co., No. 1 Delano, Kern Co.	3-25-23	2,525	gas; shut in
Trico Oil & Gas Co., No. 5 Delano, Kern Co.	3-25-23	2,467	gas; shut in
Richardson & Heaston, No. 1 Kern Front, Kern Co.	5-28-28	2,567	suspended
McDonald & Dearin, No. 1 Kern Front, Kern Co.	10-28-27	1,095	sd. sh. drlg.
National Oil Co., No. 3 Kern Front, Kern Co.	11-28-27	971	sd. sh. drlg.
National Oil Co., No. 4 Kern Front, Kern Co.	11-28-27	....	bldg. rig
Associated Oil Co., No. 6 Kern Front, Kern Co.	4-28-27	....	rigged up
Oil Factors, Inc., No. 1 Kern Front, Kern Co.	6-28-27	2,352	sd. sh. drlg.
C. C. M. Oil Co., No. 9 Kern Front, Kern Co.	23-28-27	2,057	pump. 240 b.d.
C. C. M. Oil Co., No. 10 Kern Front, Kern Co.	23-28-27	....	rigging up
C. C. M. Oil Co., No. 11 Kern Front, Kern Co.	23-28-27	....	rig; suspended
Kreighs, C. H., No. 1 Kern Front, Kern Co.	4-28-27	2,621	sd. sh. drlg.
Republic Petroleum, No. 5 Kern Front, Kern Co.	24-28-27	1,880	pump. 20 b.d.
Standard Oil Co., No. 6 Kern Front, Kern Co.	5-28-27	2,820	completing
Standard Oil Co., No. 7 Kern Front, Kern Co.	5-28-27	....	rigging up
Standard Oil Co., No. 8 Kern Front, Kern Co.	24-28-27	....	bldg. rig
The Texas Co., No. 1 Kern Front, Kern Co.	23-28-27	1,930	O.S. drlg.
The Texas Co., No. 2 Kern Front, Kern Co.	23-28-27	....	grading
American Naphtha Oil Co., No. 1 Kern Front, Kern	31-28-28	1,365	pump. 50 b.d.
Ohio Oil Co., No. 1 Premier Area, Kern Co.	20-27-27	2,451	sd. sh. drlg.
O. & F. Oil Co., No. 1 Premier Area, Kern Co.	32-27-27	....	rigging up
Aladdin Oil Co., No. 1 Mountain View, Kern Co.	19-30-29	....	material
Barnsdall Oil Co., No. 5 Mountain View, Kern Co.	32-20-29	3,482	sd. sh. drlg.
Barnsdall Oil Co., No. 6 Mountain View, Kern Co.	30-30-29	4,391	sd. sh. drlg.
Gilmore-Snyder, No. 3 Mountain View, Kern Co.	24-30-28	....	rigging up
Canal Oil Co., No. 1 Mountain View, Kern Co.	30-30-29	5,882	flow. 2,055 b.d.
Union Oil Co., No. 10 Mountain View, Kern Co.	23-30-28	5,870	sd. sh. drlg.
Hancock Oil Co., No. 8 Mountain View, Kern Co.	14-30-28	5,326	cmtd. 5,129
Hancock Oil Co., No. 9 Mountain View, Kern Co.	14-30-28	1,138	cmtd. 1,137
Hogan Pet. Co., No. 7 Mountain View, Kern Co.	4-31-29	5,910	cmtd. 5,588
Hogan Pet. Co., No. 8 Mountain View, Kern Co.	32-30-29	4,792	sd. sh. drlg.
Buffalo Oil Co., No. 1 Mountain View, Kern Co.	19-30-29	....	rigging up
Hoyt, Otis, No. 2 Mountain View, Kern Co.	19-30-29	....	rig; suspended
Vesta Pet. Co., No. 2 Mountain View, Kern Co.	19-30-29	....	rigging up
Wood-Callahan Oil Co., No. 1 Mountain View, Kern Co.	30-30-29	5,831	O.S. drlg.
O'Kane & Brain, No. 2 Mountain View, Kern Co.	30-30-29	2,362	sd. sh. drlg.
Mohawk Oil Co., No. 15 Mountain View, Kern Co.	30-30-29	5,651	cmtd. 5,532
Mohawk Oil Co., No. 16 Mountain View, Kern Co.	30-30-29	2,750	sd. sh. drlg.
Mohawk Oil Co., No. 17 Mountain View, Kern Co.	30-30-29	....	rigging up
Ohio Oil Co., No. 1 Mountain View, Kern Co.	33-30-29	5,999	redrlg. 5,287
Ohio Oil Co., No. 2 Mountain View, Kern Co.	33-30-29	....	location
Shell Oil Co., No. 5 Mountain View, Kern Co.	32-30-29	6,062	cmtd. 5,737
Shell Oil Co., No. 6 Mountain View, Kern Co.	32-30-29	....	bldg. rig
Standard Oil Co., No. 13 Mountain View, Kern Co.	23-30-28	5,565	pump. 69 b.d.
Standard Oil Co., No. 15 Mountain View, Kern Co.	13-30-28	5,181	sd. sh. drlg.
Standard Oil Co., No. 16 Mountain View, Kern Co.	13-30-28	4,271	fish. D.P.
Standard Oil Co., No. 17 Mountain View, Kern Co.	24-30-28	5,191	sd. sh. drlg.
Standard Oil Co., No. 18 Mountain View, Kern Co.	24-30-28	5,280	sd. sh. drlg.
Standard Oil Co., No. 19 Mountain View, Kern Co.	24-30-28	4,283	sd. sh. drlg.
Standard Oil Co., No. 20 Mountain View, Kern Co.	24-30-28	2,496	sd. sh. drlg.
Treasure Oil Co., No. 1 Mountain View, Kern Co.	12-30-28	....	material
Mountain View Oil Co., No. 1 Mountain View, Kern Co.	25-30-28	5,650	redrlg. 5,641
Jergins Trust, No. 5 Mountain View, Kern Co.	24-30-28	5,761	fish. D.P.
Jergins Trust, No. 6 Mountain View, Kern Co.	30-30-29	5,652	sd. sh. drlg.
United Expl. Co., No. 1 Bakersfield, Kern Co.	23-30-27	3,754	suspended
Standard Oil Co., No. 1 Round Mountain, Kern Co.	3-29-29	3,950	sd. sh. drlg.
Mountain Pet. Co., No. 1 Round Mountain, Kern Co.	24-28-28	....	rigging up
Jergins Trust, No. 12 Edison, Kern Co.	13-30-29	1,291	pump. 752 b.d.
Jergins Trust, No. 13 Edison, Kern Co.	13-30-29	1,555	pump. 297 b.d.
Jergins Trust, No. 14 Edison, Kern Co.	13-30-29	....	rigging up
Jergins Trust, No. 15 Edison, Kern Co.	13-30-29	....	bldg. rig
Jergins Trust, No. 16 Edison, Kern Co.	14-30-29	....	bldg. rig
Shell Oil Co., No. 8 Edison, Kern Co.	16-30-29	4,253	sd. sh. drlg.
Shell Oil Co., No. 9 Edison, Kern Co.	15-30-29	3,232	cmtd. 3,227
Shell Oil Co., No. 10 Edison, Kern Co.	14-30-29	1,894	P.B. 1,822
Rogers & Osborne, No. 1 Edison, Kern Co.	19-30-30	1,447	P.B. 1,100
General Pet., No. 10 Edison, Kern Co.	24-30-29	....	rigging up
General Pet., No. 1 Edison, Kern Co.	10-30-29	1,895	pump. 30 b.d.
General Pet., No. 12 Edison, Kern Co.	24-30-29	....	rig; suspended
Bauer, J. H., No. 1 Edison, Kern Co.	21-30-29	4,554	P.B. 3,190
Seeple, J. O., No. 1 Elk Hills, Kern Co.	5-30-24	5,265	suspended
Hutcheson & Osborne, No. 2 Arvin, Kern Co.	32-30-30	1,330	gr. sd. drlg.
Arlington Prop., No. 1 Buttonwillow, Kern Co.	6-28-23	3,235	gas; shut in
Milham Exploration Co., No. 5 Buttonwillow, Kern Co.	5-28-23	3,127	gas; shut in
The Texas Co., No. 1 Buttonwillow, Kern Co.	6-28-23	2,435	gas; shut in
The Texas Co., No. 2 Buttonwillow, Kern Co.	8-28-23	2,475	gas; shut in
Superior Oil Co., No. 1 Semi-Tropic, Kern Co.	23-27-23	2,418	gas; shut in
Superior Oil Co., No. 2 Semi-Tropic, Kern Co.	34-27-24	6,755	sd. sh. drlg.
Fullerton Oil Co., No. 1 Semi-Tropic, Kern Co.	1-27-22	2,391	gas; shut in
Fullerton Oil Co., No. 2 Semi-Tropic, Kern Co.	14-27-23	2,463	gas; shut in
Fullerton Oil Co., No. 3 Semi-Tropic, Kern Co.	9-27-23	3,150	gas; shut in
Fullerton Oil Co., No. 4 Semi-Tropic, Kern Co.	26-27-23	2,395	gas; shut in
Fullerton Oil Co., No. 5 Semi-Tropic, Kern Co.	8-27-23	2,347	gas; shut in
Fullerton Oil Co., No. 6 Semi-Tropic, Kern Co.	25-27-23	2,441	gas; shut in
Fullerton Oil Co., No. 7 Semi-Tropic, Kern Co.	25-27-23	2,437	gas; shut in
Fullerton Oil Co., No. 8 Semi-Tropic, Kern Co.	25-27-23	2,439	gas; shut in
Fullerton Oil Co., No. 9 Semi-Tropic, Kern Co.	26-27-23	2,431	gas; shut in
Fullerton Oil Co., No. 10 Semi-Tropic, Kern Co.	15-27-23	2,414	gas; shut in
Standard Oil Co., No. 1 Semi-Tropic, Kern Co.	8-27-23	3,200	gas; shut in
Standard Oil Co., No. 3 Semi-Tropic, Kern Co.	7-27-23	2,355	gas; shut in
Standard Oil Co., No. 6 Semi-Tropic, Kern Co.	8-27-23	2,361	gas; shut in
Standard Oil Co., No. 8 Semi-Tropic, Kern Co.	12-27-22	2,426	gas; shut in
Standard Oil Co., No. 9 Semi-Tropic, Kern Co.	1-27-23	....	location
Standard Oil Co., No. 11 Semi-Tropic, Kern Co.	20-27-24	5,035	dry; abd.
Standard Oil Co., No. 12 Semi-Tropic, Kern Co.	30-27-24	4,921	br. sh. drlg.
Standard Oil Co., No. 13 Semi-Tropic, Kern Co.	6-27-23	2,408	gas; shut in
Standard Oil Co., No. 14 Semi-Tropic, Kern Co.	36-27-23	3,445	dry; abd.
Standard Oil Co., No. 15 Semi-Tropic, Kern Co.	16-27-23	3,215	gas; shut in
Standard Oil Co., No. 17 Semi-Tropic, Kern Co.	16-27-23	3,051	gas; shut in
Milham Expl. Co., No. 1 Semi-Tropic, Kern Co.	15-27-23	3,122	gas; shut in
Milham Expl. Co., No. 2 Semi-Tropic, Kern Co.	15-27-23	2,429	gas; shut in
Milham Expl. Co., No. 3 Semi-Tropic, Kern Co.	15-27-23	2,385	gas; shut in
Milham Expl. Co., No. 4 Semi-Tropic, Kern Co.	24-27-23	2,486	gas; shut in
Comanche Oil Co., No. 1 Comanche, Kern Co.	15-32-29	5,375	gr. sd. drlg.
Tejon Ridge Oil Co., No. 1 Comanche, Kern Co.	23-32-29	2,187	suspended
Shell Oil Co., No. 1 Buena Vista, Kern Co.	9-32-25	9,453	P.B. 3,750
Ohio Oil Co., No. 1 Buena Vista, Kern Co.	31-31-26	5,302	gas; shut in
Ohio Oil Co., No. 3 Buena Vista, Kern Co.	31-31-26	5,601	dry; abd.
Silver Gate Oil & Gas Co., No. 1 Tejon, Kern Co.	7-10-19	3,005	cleaning out

Reserve Oil & Gas Co., No. 4 Tejon, Kern Co.	2-10-19	381	sd. sh. drlg.	
Pacific Expl. Co., No. 1 Kreyenhagen, Fresno Co.	17-21-17	1,600	suspended	
Union Oil Co., No. 1 Lillis-Welsh, Fresno Co.	24-21-16	10,944	redrlg. 10,700	
K.N.D.A., No. 54 Kettleman North, Fresno Co.	24-21-16	8,500	gr. sd. drlg.	
Standard Oil Co., No. 2 Kettleman Middle, Kings Co.	29-23-19	7,385	fishing	
Pet. Sec., No. 1 Kettleman Middle, Kings Co.	30-23-19	7,072	br. sh. drlg.	
Farrel Pet., Well No. 1, San Luis Obispo Co.	18-31-12	1,924	sd. sh. drlg.	
Birch-Rover Oil Co., No. 1 Pismo, San Luis Obispo Co.	33-31-13	800	sd. sh. drlg.	
United Oil Co., Well No. 1, San Luis Obispo Co.	2-32-21	....	rigging up	
Willett Oil Co., No. 1 Cholame, San Luis O ispo Co.	10-25-15	3,687	recmtd.	
Milham Expl. Co., No. 1 Tulare Lake, Kings Co.	5-22-19	3,700	sd. sh. drlg.	
Commonwealth Consd. Gas, No. 1 Tulare Lake, Kings	21-22-20	2,490	gas; shut in	
Commonwealth Consd. Gas, No. 2 Tulare Lake, Kings	21-22-20	2,052	sd. sh. drlg.	
Amerada Pet., No. 1 F.L.D., San Joaquin Co.	15- 2-5	9,400	hd. sh. drlg.	
Amerada Pet., No. 2 F.L.D., San Joaquin Co.	15- 2-5	4,063	producing gas	
Amerada Pet., No. 3 F.L.D., San Joaquin Co.	22- 2-5	4,060	gas; shut in	
Amerada Pet., No. 4 F.L.D., San Joaquin Co.	23- 2-5	4,180	sd. sh. drlg.	
Pure Oil Co., No. 1 Chowchilla, Madera Co.	7-10-14	8,402	gas; shut in	
Pure Oil Co., No. 2 Chowchilla, Madera Co.	8-10-14	4,352	sd. sh. drlg.	
Pure Oil Co., No. 3 Chowchilla, Madera Co.	6-10-14	1,081	sd. sh. drlg.	
Northern Counties Pet., No. 1 Tehama, Tehama Co.	25-24-3	5,031	recmtd. 4,904	
Shell Oil Co., No. 1 Branch, Monterey Co.	34-24-10	6,451	sd. sh. drlg.	
Clark, George, No. 1 Ducor, Tulare Co.	31-23-28	1,320	suspended	
Buttes Oilfields, Well No. 3, Sutter Co.	11-15-1	5,340	recmtd. 4,944	

IMPORTANT WELLS AND SOUTHERN CALIFORNIA WILDCATS

Company, well and location—	S.T.R.	Depth	Status
Larco Oil Co., No. 1 El Segundo, Los Angeles Co.	12- 3-15	7,600	suspended
Sovereign Oil Co., No. 1 El Segundo, Los Angeles Co.	22- 3-14	3,075	sd. sh. drlg.
Pioneer Holding Co., No. 1 Torrance, Los Angeles Co.	33- 3-14	4,298	sd. sh. drlg.
McDowell, O. H., No. 1 Torrance, Los Angeles Co.	33- 3-14	....	rigging up
Clark, T. R., No. 1 Redondo, Los Angeles Co.	6- 4-14	2,500	fish. D.P.
McAdams Expl. Co., No. 1 Palos Verdes, Los Angeles	31- 4-13	....	bldg. rig
Shell Oil Co., No. 1 Clearwater, Los Angeles Co.	13- 4-13	3,820	sd. sh. drlg.
Clayton, G. L., No. 1 Long Beach, Los Angeles Co.	31- 3-12	6,765	resuming work
Standard Oil Co., No. 12 Inglewood Deep, Los Angeles	8- 2-14	3,197	sd. sh. drlg.
Standard Oil Co., No. 13 Inglewood Deep, Los Angeles	8- 2-14	1,520	sd. sh. drlg.
Standard Oil Co., No. 14 Inglewood Deep, Los Angeles	8- 2-14	....	grading
Blackline Oil Co., No. 1 Del Rey, Los Angeles Co.	27- 2-15	6,634	redrlg. 6,596
Crest Oil Co., No. 1 Del Rey, Los Angeles Co.	27- 2-15	6,703	P.B. 6,673
Birch-Royer Oil Co., No. 1 Del Rey, Los Angeles Co.	34- 2-15	6,555	cleaning out
Joyce Oil Co., No. 1 Del Rey, Los Angeles Co.	27- 2-15	6,742	P.B. 6,675
Anglo American Oil Co., No. 1 Del Rey, Los Angeles	27- 2-15	6,939	cmtd. 6,600
Union Oil Co., No. 18 Del Rey, Los Angeles Co.	27- 2-15	....	rigging up
Union Oil Co., No. 19 Del Rey, Los Angeles Co.	27- 2-15	....	location
Union Oil Co., No. 20 Del Rey, Los Angeles Co.	27- 2-15	....	location
Treasure Oil Co., No. 1 Del Rey, Los Angeles Co.	27- 2-15	6,157	suspended
Yant Pet. Corp., No. 1 Newhall, Los Angeles Co.	1- 3-16	751	sd. sh. drlg.
Dabney Pet. Co., No. 1 Mali u, Los Angeles Co.	5- 2-18	....	rig burned
Vanco Dev. Co., No. 1 Artesia, Los Angeles Co.	25- 3-12	5,817	suspended
Eyer Pet. Co., No. 1 Compton, Los Angeles Co.	20- 4-13	1,410	suspended
Monarch Oil Corp., No. 1 Topanga, Los Angeles Co.	5- 1-16	652	cleaning out
Standard Oil Co., No. 78 Montebello, Los Angeles Co.	2- 2-12	3,835	rig to pump
Standard Oil Co., No. 79 Montebello, Los Angeles Co.	2- 2-12	....	bldg. rig
Signal Oil Co., No. 1 Montebello, Los Angeles Co.	4- 2-11	3,112	pump. water
Woodward Oil Co., No. 2 Montebello, Los Angeles Co.	4- 2-11	1,920	hd. sd. drlg.
The Texas Co., No. 1 Montebello, Los Angeles Co.	5- 2-11	7,496	hd. sd. drlg.
The Texas Co., No. 2 Montebello, Los Angeles Co.	5- 2-11	5,831	flow, 1,190 b.d.
Universal Consd., No. 5 Montebello, Los Angeles Co.	5- 2-11	....	bldg. rig
Wilshire Oil Co., No. 1 Montebello, Los Angeles Co.	5- 2-11	6,190	reaming
Wilshire Oil Co., No. 2 Montebello, Los Angeles Co.	4- 2-11	3,981	suspended
Wilshire Oil Co., No. 3 Montebello, Los Angeles Co.	11- 2-11	4,130	sd. sh. drlg.
North American, No. 1 Montebello, Los Angeles Co.	30- 1-10	4,972	sd. sh. drlg.
Hillman & Long, No. 1 Montebello, Los Angeles Co.	28- 1-11	4,480	sd. sh. drlg.
Frontier Oil Co., No. 1 Pico, Los Angeles Co.	7- 2-11	5,246	suspended
Oil & Gas Associates, No. 1 Pico, Los Angeles Co.	9- 2-11	3,194	tested wet
Pressel & Tull, No. 1 Puente, Los Angeles Co.	30- 2-9	4,535	suspended
Fraser, N. M., No. 1 Saugus, Los Angeles Co.	31- 4-16	853	fishing
International Oil Dev., No. 1 Saugus, Los Angeles Co.	34- 5-16	1,820	sd. sh. drlg.
Great Coastal Oil Co., No. 1 Elsinore, Riverside Co.	36- 5-5	1,634	sd. sh. drlg.
Commander Oil Co., No. 1 Newport, Orange Co.	29- 6-10	....	rigging up
Twentieth Century Oil Co., No. 1 Huntington, Orange	36- 5-11	5,118	resume work
Leaseholders Dev. Co., No. 1 Atwood, Orange Co.	26- 3-9	4,040	rigging up
Cook Drlg. Co., No. 1 Anaheim, Orange Co.	36- 3-9	2,000	sd. sh. drlg.
Standard Oil Co., No. 1 Anaheim, Orange Co.	36- 3-9	2,792	redrlg. 989
Hillman & Long, No. 1 San Juan, San Bernardino Co.	2- 3-8	2,418	suspended
Tehama Pet. Co., No. 1 Chino, San Bernardino Co.	33- 2-8	3,060	recmtd. 2,675

LA.-ARK. WILDCATS

(Rotary operations unless otherwise designated)

NORTH LOUISIANA

Bienville Parish

DeSoto O. & G. Co. No. 1 C. R. Mower, 270 ft. S, 460 ft. W, NE cor. NW SW sec. 9-16-10.
Rigging up.

Bossier Parish

Ark.-La. Gas Co. No. 1-B Werner, 1,258 ft. N, 624 ft. E, SW cor. SE SE sec. 7-17-11.
Drlg. 3,555 ft.

Bossier O. & G. Co. No. 2 Sherrill, 330 ft. N and W, SE cor. sec. 13-19-12.
S.D. 2,180 ft.

Geo. H. Bringhurst et al No. 1 Buckley, NE SW sec. 25-21-13.
Set 10-in. 58 ft.

Premier Investment Co. No. 2 Larkin, 660 ft. N and 150 ft. E SW sec. 14-19-11.
Comp.; pumping 8 bbls., 466 ft.

Producers O. & G. Co. No. 1 Pettitt, 320 ft. S and W, NE cor. NW sec. 17-17-11.
Drlg. 4,120 ft.

Producers O. & G. Co. No. 1 Edwards, 660 ft. N and W, SE cor. sec. 27-18-11.
S.D. for fuel 360 ft.

Triangle Drlg. Co. No. 2 Skannal, Unit 60, S and W of C of NE.
Fishing for D.S. 2,714 ft.

Caddo Parish

J. Ed Bailey, tr., No. 1 Hartzo, NW cor. NE NW sec. 28-22-16.
S.D. 1,226 ft.

John D. Bialock No. 2-A Seybert, 270 ft. N and 220 ft. E of C sec. 17-20-15.
S.D. 1,560 ft.

J. M. Collins No. 1 fee, 2,042 ft. N, 394 ft. E. SW cor. sec. 4-20-15.
W.O.S.R. 2,200 ft.

Falcon Oil Co. No. 1 Glassell, 1,615 ft. N, 994 ft. E. SW cor. sec. 26-20-15.
Set 10-in. 80 ft.; drlg. 1,400 ft.

F. D. Hyde No. 1 Thigpen & Herold, 350 ft. S and E, C sec. 5-15-15.
Drlg. 2,650 ft.

Max Brandt No. 1 Hughes, SW cor. NE NW sec. 15-20-15.
Tested 500,000 ft. gas; S.D.; W.O. 2,296 ft.

Poindexter & Tucker No. 4 Levy, SW cor. SE NE sec. 16-20-15.
W.O.S.R. 2,240 ft.

Puritan Oil Co. No. 1 Land, 550 ft. E. 250 ft. N, SW cor. sec. 4-20-15.
W.O.S.R. 2,181 ft.

Shreveport Oil Corp. No. 7-B Muslow, 495 ft. N, 1,320 ft. E, SW cor. sec. 4-20-15.
Set 6¼-in. 2,140 ft.

Shreveport Oil Corp. No. 2-G Muslow, 780 ft. S, 578 ft. W, NE cor. sec. 9-20-15.
W.O.S.R. 2,185 ft.

Ty-Stan, Inc., No. 1 Jolly, 400 ft. S and E, NW cor. SW SW sec. 22-22-15.
S.D. 2,820 ft.

Caldwell Parish

Caldwell Drlg. Co. No. 2 Gore, 280 ft. S, 400 ft. W, NE cor. SE sec. 30-12-3e.
T.A. 765 ft.

Critchett & Woods No. 1 Kyles, NE cor. SW NE sec. 18-11-3e.
R.U. on second hole.

G. W. Zeigan et al No. 1 La.-Central Lbr. Co., 175 ft. S and E, NW cor. SW SW sec. 25-12-3e.
S.D. 1,200 ft.

Claiborne Parish

E. T. Oakes No. 1 H. W. Patton Est., 660 ft. S and W, NE cor. sec. 1-20-5w.
Drlg. 4,179 ft.

Ryan Oil Corp. No. 1 F. A. Gladney, 660 ft. S, 330 ft. E, NW cor. SE sec. 10-23-10, sec. 27-20-7.
Coring 4,517 ft.

United Gas Public Service Co. No. 2 Durfett, 660 ft. N and 1,980 ft. E, SW cor. sec. 31-20-5.
Drlg. 3,449 ft.

De Soto Parish

E. B. Bird et al No. 1 J. H. Johns, 330 ft. N and W, C sec. 26-14-6.
Tested S.W. 2,622 ft., S.D.W.O.

Sam Goldman No. 1 G. R. Stell, 330 ft. S and W, NE cor. sec. 5-12-16.
S.D. 300 ft.

A. G. Halbach et al No. 1 Staton, 150 ft. N and E, SW cor. SE sec. 29-13-14.
Drlg. 50 ft.

C. T. Ruffin No. 2 Lee, 150 ft. N, 660 ft. E, SW cor. NW SW sec 33-14-13.
Comp.; pumping 15 bbls., 2,843 ft.

Ed Saffold et al No. 1 Thigpen, sec. 33-13-13.
S.D. 3,005 ft.

Union Pet. Co. No. 1 Hill, sec. 3-10-13.
Skidding over 100 ft. for new hole.

Grant Parish

Alexander et al No. 1 Maxwell, sec. 9-9-1e.
Coring 1,527 ft.

Lincoln Parish

Caldwell Land & Timber Co. No. 1 J. K. Hammons, 330 ft. S and E, NW cor. SE SW sec. 30-18-1w.
Derrick.

Herman L. Brown, No. 1 Monstead, 1,320 ft. S, 660 ft. E of C sec. 10-17-4w.
Comp.; 71,385,000 ft. gas, 5,301 ft.

Madison Parish

Southern Land & Exploration Co. No. 1 Delta Land Co., sec. 1-17-12e.
S.W. and abd. 2,207 ft.

Morehouse Parish

United Gas Public Service Co. No. 31 Crossett, 1,320 ft. S, 660 ft. E, SW cor. sec. 15-21-4e.
Set 7-in. 2,111 ft.

Zeiger & Bacon No. 2 Crossett Lbr. Co., 3,870 ft. N, 505 ft. E, SE cor. SE SW of sec. 36, in sec. 41.
S.D. 50 ft.

Ouachita Parish

American Liberty Oil Co.'s No. 1 Golson, C NW Sec. 25-17-1e.
Tested S.W. 5,281 ft.; old T.D. 5,381 ft.

Carbon Consolidated No. 1 Interstate, 990 ft. S, 660 ft. E, NW cor. SW sec. 32-19-4e.
Set 10-in. 194 ft.; set 6-in. 2,137 ft.

Inabnet & Piper No. 5 Nelson, 205 ft. N, 300 ft. E, SW cor. SE sec. 32-19-4e.
Set 10-in. 145 ft.; drlg. 1,410 ft.

Interstate Nat. Gas Co. No. 39 fee, 660 ft. S and E, NW cor. NE NE.
Set 12½-in. 170 ft.; set 8-in. 753 ft.

Interstate Nat. Gas Co. No. 41 fee, 809 ft. N, 274 ft. W, SE cor. SW sec. 19-19-4e.
Set 12½-in. 172 ft.; set 8-in. 769 ft.

Rapides Parish

Amerada Pet. Co.'s No. 1 Weil, 2,450 ft. N 550 ft. E. SW cor. Sec. 52-1s-2e.
Comp.; flowing 56 bbls. daily and 1,107,740 ft. gas, 5,780 ft.; old T.D. 6,637 ft.

Natchitoches Parish

Ab Jones' No. 1 Brown Lbr. Co., 400 ft N, 330 ft. W, SE cor. Sec. 5-10-10.
S.D. 1,033 ft.

Union Petroleum Co.'s No. 1 DeBlieux, 1,395 ft. E, 150 ft. S, NW cor. Sec. 32-10-7.
Drlg. 2,538 ft.

Red River Parish

India Oil Co.'s No. 1 La. Pecan Co., 2,590 ft. W and 850 ft. N of SE cor. Sec. 27-13-11.
S.D. 550 ft.

J. S. Tuffree's No. 1 Wilkinson, 1,320 ft S and W, NE cor. Sec. 11-12-11
S.D. 1,395 ft.

Sabine Parish

B. S. & M. Oil Co.'s No. 1 Tatum, 330 ft S and E, NW cor. NW SE Sec. 32-8-18
P.B. to 1,590 ft. from 2,100 ft

Helena O. & G. Co. No. 2-A Frost Lbr., 330 ft. N and W, SE cor. sec. 19-19-13.
Drlg. 60 ft.

Jack Lent's No. 1 Williams, Sec. 13-7-11
Dry and abd. 2,765 ft.

H. H. Morris, tr., No. 2 Henderson, 330 ft. S and E, NW cor. NW SE Sec. 32-8-18
P.B. to 1,590 ft. from 2,100 ft

Helena O. & G. Co. No. 2-A Frost Lbr., 330 ft. N and W, SE cor. sec. 19-19-13.
Drlg. 60 ft.

Jack Lent's No. 1 Williams, Sec. 13-7-11
Dry and abd. 2,765 ft.

H. H. Morris, tr., No. 2 Henderson, 330 ft. S and E, NW cor. NW SE Sec. 32-8-18
Set 10-in. 60 ft.; drlg. 1,330 ft.

Geo. L. Pace's No. 4 DeSoto Corp., 330 ft. S and W NE cor. SE SE Sec. 27-10-13.
Bailing to test 1,595 ft.

Pearl Oil Corp.'s No. 5 M. Cranford, Sec. 20-9-13.
Swbng. to test 1,646 ft.

Claude H. Smith No. 1 Whitney Corp., 330 ft. S, 990 ft. W, NE cor. sec. 19-10-13.
Set 12½-in. 184 ft.; drlg. 1,200 ft.

Lee Whitehurst's No. 5 Frost Lbr. Ind., C NW SW SE Sec. 20-9-13
Set 10-in. 62 ft.; drlg. 525 ft.

Union Parish

United Carbon Co. No. 2 Stovall, 1,180 ft. S, 750 ft. E, C sec. 28-21-4e.
Rigging up.

Webster Parish

Bennett & Eldred's No. 1 Fulbright, NE NE Sec. 1-18-10.
Coring 2,585 ft.

Lyons & Myers No. 1 Leola Brantley, 330 ft. S and E, NW cor. SW SE sec. 1-21-9.
Drlg. 75 ft.

Winn Parish

Parsons et al's No. 1 Tremont Lbr. Co., 660 ft. S, 330 ft. E NW cor. SW Sec 10-12-2w.
S.D. 1,120 ft.

ARKANSAS

Arkansas County

Grand Prairie Realty Co.'s No. 2 Fischer 412 ft. S, 12 ft. W, NE cor. NW NW Sec. 6-6-4w.
T.A. 1,628 ft.

Ashley County

Benedum & Trees' No. 1 Holmes, C NE SW Sec. 4-17-5.
Whipstocking 4,205 ft.; old T.D. 4,234 ft.

Columbia County

J. G. Cubage et al's No. 1 Rhea, 150 ft N line, 330 ft. E, SW cor. SE SE Sec. 12-17-22.
Dry and abd. 3,507 ft.

Magale & Elam No. 1 L. Garrett, 330 ft. N and W, SE cor. NE SW sec. 13-17-20.
Rigging up.

Southern States Gas Co.'s No. 1 Piney Woods Lbr. Co., 330 ft. N and E, SW cor. NE NW Sec. 10-20-22.
S.D. 1,924 ft.

Dallas County

McCall & Kelly's No. 1 Ray Owen, 330 ft. S and E, NW cor. NW SW.
Bailing to test 1,456 ft.

Hempstead County

G. L. Glass, tr.'s No. 1 May B. O'Bier, Sec. 32-12-23.
Derrick.

F. W. Martin's No. 2 Lafferty, C NW Sec. 17-14-24.
Rigging up.

LaFayette County

Earl F. Fox' No. 2 Coleman Bros., NE NE Sec. 30-16-24.
Set 10-in. 135 ft.

Erwin & Leach No. 3 Bodcaw Lbr. Co., 330 ft. S and E, NW cor. sec. 20-16-13.
Moving in rig.

Kamon & Neely's No. 1 Cockran, NW cor. SE SW Sec. 26-19-25.
S.D. 4,450 ft.

Joe Modisett's No. 1 Red River Lbr. Co., C SW SW Sec. 21-19-14.
Fishing for D.S. 5,316 ft.

Riggs Bros.' No. 1 Dubose, SE cor. SW NW Sec. 35-15-24.
S.D. 2,800 ft.

Transportation Pet. Co.'s No. 1 Cockran, 300 ft. S and W, NE cor. SE Sec. 26-19-25.
S.D.; W.O. 3,345 ft.

Miller County

E. J. Donohue's No. 4 Beck, 330 ft. N and W, SE cor. NE SE Sec. 33-15-26.
Arranging set csg. 2,921 ft.

M. D. K. Fitzwater's No. 1 E. H. Beck, 150 ft. N and E, SW cor. NW SW Sec. 34-15-26.
W.O.S.R. 2,919 ft.

Haynes Prod. Co.'s No. 1 Embree estate, 330 ft. N and W, SE cor. SW SW sec. 9-20-28.
Drlg. 2,912 ft.

King Oil Corp.'s No. 1 G. W. Crank, SW NE Sec. 19-16-25.
Drlg. 3,240 ft.

M. H. S. Oil Co.'s No. 2 Beck, Sec. 34-15-26.
Arranging set csg. 2,920 ft.

L. H. Mahon et al's No. 1 Miller Land & Timber Co., SW cor. SE Sec. 29-18-27.
S.D. 150 ft.

Monroe County

J. R. Lockhart et al's No. 1 Rue Abramson, SE cor. SE SE sec. 19-1s-1w.
S.D. for report on core, 3,338 ft.

Nevada County

Carnett et al's No. 1 Floyd Munin, C SW Sec. 16-14-22.
S.D. 50 ft.

Ouachita County

Benedum & Trees' No. 1 H. Brighton, C NE SW Sec. 29-14-19.
Drlg. 4,970 ft.

Snow-Black Pet. Co.'s No. 1 Bedford, 630 ft. N and 150 ft. E, SW cor. Sec. 22-11-18.
Derrick up on new hole.

W. B. Street, trustee's No. 1 Roth & Cartier, 330 ft. N and E, SW cor. SW NE.
Coring 1,338 ft.

Sevier County

Pendleton & Vaughn's No. 1 Dierke, C NW NE Sec. 14-10-29.
Drlg. 240 ft.

Union County

J. J. Allen No. 1 Union Sawmill, 750 ft. W, 330 ft. N, C sec. 8-17-12.
Set 10-in. 150 ft.; set 7-in. 450 ft.; drlg. 1,338 ft.

Arkansas Southern Oil Co.'s No. 1 F. R. Laney, Sec. 30-19-16.
Installing larger rig 175 ft.

J. C. Buckbee, Tr.'s No. 1 Sloan, 330 ft. N and E, SW cor. SE NW.
W.O.S.R. 2,160 ft.

J. E. Crosbie Inc.'s No. 1 Sullivant, 200 ft. N and W SE cor. SW NW Sec. 12-17-14.
Comp.; flowing 560 bbls. 3,175 ft.

Mrs. R. K. Jones et al's No. 1 Davis, 330 ft. N and W, SE cor. NW NW Sec. 28-16-14.
Arranging to test 3,297 ft.

MISSISSIPPI

Bolivar County

White & Jones' No. 1 Ballou, SE SE NW Sec. 17-24n-7w.
S.D. 1,614 ft.

Clarke County

L. Beckwith et al's No. 1 Long Bell Lbr. Co., 535 ft. S, 125 ft. W of C Sec. 10-3n-16e.
T.A.; lack of funds.

Clarke County Oil Co.'s No. 1 Dora Butler, C SW SW Sec. 15-3n-16e.
Set 10-in. 63 ft.

Greene County

United Gas Pub. Ser. Co.'s No. 1 William Unit, 200 ft. N, 100 ft. W, C SW Sec. 6-15-5w.
Drlg. 2,550 ft.

Harrison County

Big Ridge Oil Co.'s No. 1 Hinzin, NE Sec. 13-7s-10w.
S.D.; W.O. 1,100 ft.

Lafayette County

W. L. Stewart et al's No. 1 Russell, 1,320 ft. N, 1,720 ft. E, SW cor. Sec. 9-10s-1w.
Drlg. 2,670 ft.

Lauderdale County

Bob Dalton's No. 1 Bounds, Sec. 34-7n-15e.
S.D.; W.O. 1,600 ft.

Warren County

H. W. Elliott et al's No. 2 R. L. Parker, 780 ft. E, 1,570 ft. S, NW cor. Sec. 14-14n-1e.
S.D.; W.O. 1,600 ft.

Washington County

Perkins & Dees' No. 1 Lee, 1,500 ft. E 500 ft. N, SW cor. Sec. 33-15n-3w.
S.D. 2,175 ft.

Winston County

Jack Vale et al's No. 1 Moody, 713 ft N, 667 ft. E, SW cor. NW SW Sec. 3-13n-14e.
Set 6-in. 2,212 ft.

ALABAMA

Houston County

Rice O. & G. Co.'s No. 1 Oakley Est., SE cor. NW SW Sec. 9-3n-29e.
S.D. 3,035 ft.

Lamar County

DeSoto O. & G. Corp.'s No. 1 Gardner, Sec. 22-15s-16w.
Drlg. 4,795 ft.

Mobile County

J. C. Prine's No. 1 C. H. M. King, N½ NE Sec. 4-1n-4w.
Drlg. 2,890 ft.

FLORIDA

Lake County

Oil Dev. Co. of Florida's No. 1 South Lake, SE SE Sec. 17-24s-25e.
S.D. at 1,946 ft. after coring 75 ft. of lime; awaiting acid treatment.

LA.-ARK. PROVEN

NORTH LOUISIANA

Caddo—Rodessa

Ark.-La. Gas Co. No. 6 Rodessa Oil & Land Co., 400 ft. S, 200 ft. E, NW cor. SW NW sec. 23-23-16.
Fishing for 16-in. csg. 248 ft.

Ark.-La. Gas Co.'s No. 5 Rodessa O. & Land Co., 289 ft. S, 140 ft. E, C Sec. 23-23-16.
Drlg. 3,740 ft.

Ark.-La. Gas Co.'s No. 4 Rodessa Oil & Land Co., 590 ft. S, 588 ft. E, NW cor. NE Sec. 22-23-16.
Coring 5,987 ft.

Bartex Pipe Line Co.'s No. 1 Norton Est., 660 ft. N and W, SE cor. NE Sec. 18-23-15.
Set 10¾-in. 2,282 ft.

Bartex Pipe Line Co.'s No. 1 Rodessa O. & Land Co., 660 ft. N and W, SE cor. NE SE Sec. 13-23-16.
Derrick.

Danciger & Hall's No. 1 Willis C. Lot 5, Blk. 7, Sec. 23-23-16.
Derrick.

Haynes Prod. Co. No. 1 J. Caldwell, 660 ft. N, 2,079 ft. E, SW cor. sec. 12-23-16.
Set 12½-in. 260 ft.

Haynes Prod. Co. No. 4 Lawton, 290 ft. S, 836 ft. W, NE cor. SE SW sec. 14-23-16.
Set 12½-in. 262 ft.; set 9⅝-in. 2,079 ft.

Haynes Prod. Co.'s No. 1 Mattie Pitts, 290 ft. N, 264 ft. W, SE cor. NE NW sec. 14-22-16.
Set 12½-in. 261 ft.; set 9⅝-in. 2,083 ft.

Haynes Prod. Co.'s No. 4 Sexton, 337 ft. N, 230 ft. W, SE cor. SW NE sec. 14-23-16.
Drlg. 4,285 ft.

Haynes Prod. Co.'s No. 3 Sexton, 285 ft. S and 236 ft. W NE cor. SW NE Sec. 14-23-16.
Set 7-in. 5,855 ft.

W. M. Layton et al's No. 1 Tyson, 325 ft. N, 330 ft. W, C Sec. 22-23-16.
Reaming to set csg. 5,999 ft.

Lion Oil Ref. Co. No. 1 J. M. Wynn, 1,900 ft. N, 660 ft. E, SW cor. sec. 9-23-15.
Rigging up.

M. H. Marr et al's No. 1 W. J. Hunter, 330 ft. S and E, NW cor. SW sec. 13-23-16.
Drlg. 3,967 ft.

McAlester Fuel Co.'s No. 1 Tyson, 250 ft. N, 150 ft. W, C Sec. 22-23-16.
Drlg. 5,794 ft.

Geo. Mannahan's No. 1 T. M. Comegys, 330 ft. N and W, SE cor. NE SE Sec. 10-23-16.
P.B. from 6,026 ft.; set 7-in. 6,016 ft.

R. W. Norton's No. 2-A Caddo Levee Board, 1,320 ft. S, 660 ft. E, C Sec. 21-23-16.
Drlg. 5,524 ft.

R. W. Norton's No. 1 Tyson heirs, 1,980 ft. E, 660 ft. S, NW cor. Sec. 13-23-16
Comp.; flowing 65 bbls. per hr.; ½-in. choke; 6,032 ft.

R. W. Norton's No. 1 Fosque, 1,980 ft. N. 660 ft. W, SE cor. Sec. 20-23-16.
Comp.; flowing 86 bbls. per hr.; ½-in. choke; 6,004 ft.

Pelican Oil & Gasoline Co. No. 7 Sexton, 330 ft. S and W, NE cor. NE SE sec. 14-23-16.
Rigging up.

Pelican Oil & Gasoline Co. No. 5 Sexton, 330 ft. N and W, SE cor. SE NE sec. 14-23-16.
Set 10-in. 2,100 ft.

Pelican Oil & Gasoline Co.'s No. 4 Sexton, 330 ft. S and W, NE cor. SE NE sec. 14-23-16.
Drlg. 1,574 ft.

Pelican Oil & Gasoline Co.'s No. 6 Sexton, 330 ft. S and E, NW cor. NE SE sec. 14-23-16.
Drlg. 3,843 ft.

Pelican Oil & Gasoline Co.'s No. 2 Sexton, 330 ft. N and E, SW cor. SE NE Sec. 14-23-16.
Set 7-in. 5,990 ft.; T.D. 6,015 ft.

Pelican Oil & Gasoline Co.'s No. 3 Sexton, 330 ft. S and E, NW cor. SE NE Sec. 14-23-16.
Drlg. 5,706 ft.

United Gas Public Service Co.'s No. 2 Ardis & Co., 330 ft. N, 1,980 ft. E, SW cor. sec. 14-23-16.
Drlg. 1,580 ft.

United Gas Public Service Co.'s No. 3 Rodessa O. & Land Co., 660 ft. S, NW cor. sec. 23-23-16.
Set 9⅝-in. 2,196 ft.; drlg. 2,828 ft.

United Gas Public Service Co.'s No. 1 Poole, 660 ft. S and W, NE cor. Sec. 21-23-16.
Drlg. 5,410 ft.

United Gas Public Service Co.'s No. 1 Ardie & Co., 660 ft. N, 1,980 ft. W, SE cor. Sec. 14-23-16.
Set 9⅝-in. 5,300 ft.; drlg. 5,330 ft.

G. H. Vaughn Prod. Co. No. 2 Hunter Derryberry, 330 ft. S, 772 ft. W, NE cor. NW NW sec. 14-23-16.
Set 9⅝-in. 2,006 ft.; drlg. 3,490 ft.

G. H. Vaughn Prod. Co.'s No. 1 T. M. Comegys, 330 ft. N and E, SW cor. SE SE Sec. 10-23-16.
Perforated 7-in. 5,874-5,910 ft.; T.D. 6,000 ft.

Sabine Parish—Zwolle

Alexander & Crane's No. 1 Fogman, SE cor. N½ SW NE Sec. 18-7-11.
S.D. 2,655 ft.

Ivan A. Allen No. 1 Travis, 330 ft. S and W of NE cor. NE NW Sec. 13-7-11.
W.O. 6-in. csg., 2,261 ft.; (corrected).

Ellis Prod. Co. No. 1 Williams, 330 ft. S and W, NE cor. SE NE sec. 23-7-11.
Set 10-in. 60 ft.; drlg. 115 ft.

H. C. Maulding's No. 1 Davis, 350 ft. N and W, SE cor. NE NE Sec. 2-7-11.
S.D. 400 ft.

A. H. Tarner's No. 1 Baker, 330 ft. S and E NW cor. NW NE Sec. 36-8-12.
Drlg. 4,250 ft.

EAST TEXAS

(Border Counties)

Cass County

American Liberty Oil Co.'s No. 1 J. B. Rodgers, 330 ft. N, 430 ft. W, SE cor. of 160-ac. tract in C. M. Robinson Sur.
Drlg. 4,800 ft.

R. W. Norton's No. 1 Haywood, 660 ft. N, 580 ft. W, SE cor. Priscilla Evans Sur.
Set 13⅜-in. 370 ft.; drlg. 3,313 ft.

United Gas Public Service Co.'s No. 1 Thurman, 1,370 ft. S, 1,320 ft. W. NE cor. John Coleman Sur.
Drlg. 5,896 ft.

Harrison County

R. C. Payne et al's No. 1 Lowery, H. D Spain Sur.
P.B. to 3,524 ft.

Marion County

Ed S. Holman's No. 1 Henderson, R. Bennington Sur.
P.B. to 2,443 ft.

Panola County

R. A. Graddy's No. 1 M. J. McCormick J. McAdams Sur.
Drlg. 2,675 ft.

George Hudson et al's No. 1 J. F. Nail, C. McGeary Sur.
Set 8-in. 40 ft.; fishing for core bbl. at 2,345 ft.

Geo. Le Grand's No. 1 P. J. Wardleigh, A. Thompson Sur.
Set 10-in. 62 ft.

R. W. Price's No. 1 Crawford, J. A. Williams Sur.
Set 10-in. 64 ft.

Fred Stovall Drlg. Co.'s No. 1 H. D. Ivey, P. Martin H.R.S.
S.D. for csg. 1,980 ft.

Shelby County

Cliff Stoval's No. 1 Pickering Lbr. Co., C. H. Patterson Sur.
S.D.; rig repair, 1,485 ft.

S. W. TEXAS WILDCATS

Week Ending November 30

Atascosa County

R. C. Lee's No. 1 Atascosa Trust, 160 ft. S line, 300 ft. E line, 152-ac. lease, J. T. Russell Sur. No. 1,222.
Drlg. 210 ft.

Robert McIntyre's No. 1 Billimek, 1,104 ft. SW line, 3,700 ft. SE line, J. D. Woodruff Sur. No. 246.
Rigging up.

Bandera County

Plateau Oil Co.'s No. 1 Garrison, G.C.&S. F. Sur. No. 506, 1,500 ft. from W and 2,970 ft. from N lines of survey.
Drlg. hard shale 5,244 ft.

Bee County

Geo. W. Church's No. 1 Hearn, 2,000 ft. S No. 1 Wood.
Drlg. 2,705 ft.

Geo. M. Church's No. 1 Ray, 360 ft. E line, 330 ft. N line, C 40-ac. tract, Anna Burk Sur.
Ready to spud in; waiting on water well.

LaSalle Pet. Corp. No. 1 Ray, 360 ft. E line, 330 ft. N line, 40-ac. tract, Anna Burk Sur.
Rigged up.

D. C. Smith's No. 1 Robertson, 150 ft. N and W lines, T. B. Barton Sur., Abst. 114.
Sand 3,025-59 ft.; no show; swabbing; S.D. for orders.

Rogers Oil & Gas Co. No. 1 Goree, 370 ft. E line, 1,386 ft. S line, Blk. 20, Tarver Henslee Subd., Toward ranch.
Rigged up; waiting on gas.

Bexar County

Jas. B. Cunningham's No. 1 L. F. Ridder, 950 ft. S of Nelson Road, 1,300 ft. from E line, Block 5,196, Sur. No. 58.
T.D. 860 ft.; standing.

Dorine Oil Co.'s No. 1 Haywood, 1,000 ft. E No. 2 Tudyk, Cardenas Sur.
No report.

Morgan & Magna's No. 1 Kirkwood, Desaque Sur., 9 miles SW of San Antonio.
Location.

Bert Mowinkle's No. 1 Kotsur, 434 ft. N line, 150 ft. W line, Loringville Sur.
Drlg. 260 ft.

H. B. Starkey's No. 1 McCloskey, 150 ft. W line, 1,525 ft. N line lease, Desague Sur.
T.D. 780 ft.; S.D.

Fred Thorman's No. 1 Sahn, 330 ft. E line, 600 ft. S line of tract, Sur. No. 3.
Spudded in; waiting on rotary rig.

Jacob Wolf No. 1 Jurz, 150 ft. Medina River, 500 ft. N line tract, Rolen Sur.
Drlg. 55 ft.

Brooks County

California Co. No. 1 B. Garcia, 465 ft. N and W lines lease, B. Garcia tract, Salinas Sur.
Moving in material.

Winfield and Musser's No. 1 Singer, 660 ft. N and E lines SE¼ Sec. 312.
T.D. 968 ft.; dry and abd.

Caldwell County

P. M. Armstrong's No. 1 Dunlap, 300 ft. W Bob Rose No. 1 Pierce, Dunlap area.
Moving in material.

J. J. Elam's No. 1 Brown, 450 ft. SE and SW lines of lease, Souvereign Sur.
Rigging up.

Port Isabel Oil & Gas Co.'s No. 1 Baker, 990 ft. SE line, 330 ft. SW line, 167-ac. tract, Geo. W. James Sur.
Drlg. Buda lime 2,955 ft.

W. H. Jennings' No. 1 McMahan, 250 ft. SE and SW lines, 65-ac. tr.
Set sur. csg. 44 ft.; W.O.C.

Cameron County

Joseph Anderson's No. 1 Browne, 330 ft. N line, Blk. 379, San Benito Subd., Espirito Santo grant, 3 miles N Rio Hondo.
Standing 5,195 ft.

Kingwood & Daniels' No. 1 Port Isabel, Share 29.
Spudded in; S.D.

Dewitt County

Reginald F. Baurke's No. 1 W. C. Steinman Est., 937 ft. from N and S lines, Uriah Blue 1-3 League.
To resume drilling; T.D. 2,412 ft.

D. G. Glaspier's No. 1 Schusbel, 330 ft. from S and W lines of tract, Fitzgerald grant.
Set sur. csg.; to move in larger rig.

Duval County

J. H. Chandler's No. 2 Rita Pena, Share 4, Mesquite grant.
Skidded over from No. 1.

Chas. Daubert No. 1 Kreis, 2,600 ft. N line, 2,700 ft. E line, Sur. 515.
Drlg. water well.

Denton, Marshall et al No. 1 Rogers, 2,310 ft. NE line, 1,650 ft. SE line, H.& G.R. Sur. No. 15.
T.D. 4,286 ft.; tested salt water.

Magnolia Pet. Co.'s No. 1 Milano Land & Garden Co., 330 ft. S and W lines, Sur. 85.
Coring 2,719 ft.

Magnolia Pet. Co.'s No. 1 Worden-Duval, 330 ft. N and W lines, Sec. 153.
Drlg. 1,328 ft.

A. E. Masterson's No. 1 Rogers, 2,310 ft. NE line, 1,650 ft. SE line, 40-ac. tract, H.&G.R. R.R. Co. Sur. 15.
No report.

Plymouth Oil Co.'s No. 1 Cuellar, 330 ft. NW and NE lines, Sur. 123.
S.D.; T.D. 3,128 ft.

Rogers & Rogers No. 1 Sutherland, 330 ft. S and W lines, Sec. 120.
Set sur. csg. 150 ft.; W.O.C.

Santa Clara Oil Co.'s (Atkins & O'Neil) No. 1-A James F. Welder Heirs, 330 ft. SW cor. 640-ac. tr. lying W of sec. 525, in sec. 103.
Set sur. csg. 100 ft.; drlg. 120 ft.

T. G. & M. Drlg. Co.'s No. 2 M. Davison, Sur. 90.
T.D. 3,015 ft.; dry and abd.

Trinity Drillers, Inc.'s No. 1 Sweden ranch (Driscoll-Sevier), 330 ft. N and E lines, Sec. 68, Santa Rosalie grant.
Set sur. csg. 32 ft.; W.O.C.

Edwards County

Paul Teas' No. 1 Stewart, C SE¼, Sec. 2, G.C.&S.F. Sur.
Location.

Frio County

W. D. Bacon's No. 1 Burns, 2,500 ft. S and W line, Thomas Clifton Sur.
S.D. 2,330 ft.

F. L. Thompson No. 1 La Batt, 2,085 ft. W line, 265 ft. N line, Uphus Sur. 169.
Location.

Goliad County

John W. Greer's No. 1 Pettus, Sebastiana Vela Sur.
Location.

Hendricks et al's No. 1 Gillette, 330 ft. of NW and SW lines of tract, G. Gomez Sur.
Location.

Keystone Royalty Co.'s No. 2 M. Woods, 330 ft. S and E lines, SE¼ 160-ac. tract, Sec. 13, Josefa Rios Sur.
T.D. 6,702 ft.; P.B. 6,014 ft.; perforated 5,977-83 ft.; rigging up to swab.

Potter et al No. 1 Lutenbacher, 330 ft. N and W lines, Blk. 25, Goliad townsite.
Moving in material.

Thompson Drlg. Co.'s No. 1 Hays Taylor estate, 900 ft. SE line, 2,400 ft. W cor. 791-ac. tract, Smith Sur.
Drlg. 3,523 ft.

Gonzales County

Interallied Pet. Co.'s No. 1 Wells, 1,788 ft. S line, 185 ft. W line, Sec. 3, 648-ac. subvd., Wells Ranch.
Bane Sur.
T.D. 4,100 ft.; S.D.

Guadalupe County

Paul Armstrong and J. E. Clark No. 1 Brodnoux, 150 ft. S and E lines, 36-ac. tract, W. P. King Sur.
Location.

Jim Harper's No. 1 Flucker, 220 ft. NE line, 150 ft. NW line of tract, Smith Sur. No. 15.
T.D. 2,200 ft.; S.D.

Hopkins Bros.' No. 1 Sherrill, 150 ft. NW line, 625 ft. NE line, 300 ft. SW No. 1 Gabriel.
Bailing 759 ft.

R. C. Robbins' No. 1 Manford, 1,200 ft. E line, 750 ft. S line, 100-ac. tr., Hodges ¾ league.
T.D. 1,160 ft.; S.D.

Hidalgo County

Gulf States Oil Co.'s No. 2 J. C. Engleman, 400 ft. S and E lines, Lot 3, Blk. 70, Las Mestanas grant.
Coring 5,120 ft.

Gulf States Oil Co.'s No. 1 Delta Orchards, 580 ft. from N line, 490 ft. W line, Lot 2, Blk. 73, Las Westanas Grant.
Rigging up.

Kingwood Oil Co.'s No. 2 Osca Daskom, 723 ft. N line, 1,805 ft. E line, Blk. 20, Porc. 45, J. of Reynosa.
Moving in material.

Maxwell's No. 1 Hidalgo Water Dist. No. 2, Lot 11, Blk. 20, Alamo Land & Sugar Co. Subd., Alamo tract, 10 miles SW McAllen.
Drlg. 430 ft.

Sloan et al's No. 1 Brock & Showers, 250 ft. S and W lines, Lot 9, Blk 16, Por. 47.
T.D. 6,003 ft.; P.B. to perforate 4,660-66 ft.; W.O. orders.

Dayle L. Smith Oil Co.'s No. 1 Fairbanks & Young, Blk. 44, Por. 46, Jurisdiction of Reynosa.
Set sur. csg. 268 ft.; W.O.C.

Jim Hogg County

French Oil Corp.'s No. 1 E. Rodriguez, Share M-1, partition, Las Cuevitas grant.
Location.

S. L. Miller Oil Co.'s No. 1 Yeager, 150 ft. E line, 477 ft. S line, Blk. 6, Sur. 20.
Sand 3,412-44 ft.; running csg.

P. H. Neilson, trustee's No. 1 de la Garza, 580 ft. E line, 600 ft. S line, Blk. 293, Pippin Subd., Randado grant.
Location.

Jim Wells County

Putnam & Stewart's No. 1 Hawkins, 1,200 varas N, SW cor. lease, at R.R. and lease point, thence 1,200 varas W.
Gas sand 2,772-82 ft.; D.S.T. 5 min., ½-in. top and 3-in. bottom chokes, W.P. 125 lbs.; gas; drlg. plugs.

Smith & Son No. 1 McGill, 660 ft. S No. 1 Dilworth.
P.B. to gas sand 2,325-44 ft.; W.O.C.

J. E. Walsh's No. 1 Wade, 750 ft. NW line, 300 ft. NE line, Lot 3, Blk. C.
S.D. for water; T.D. 1,900 ft.

Kendall County

H. W. Martin's No. 3 Edwin Houston, I.T.&N. Sur. 593.
Location.

Southwestern Dev. Co.'s No. 1 Werner, 765 ft. W line, 1,645 ft. N line, J. P. Torrey Sur. No. 781.
T.D. 972 ft.; S.D.

Kerr County

Auld and Evans' No. 1 Heffner, 660 ft. N line, 330 ft. E line, Sec. 13, B.S.&F. Sur.
Rigged up; S.D.

Kleberg County

John Bartlett's No. 1 Anton Deitz, SE¼ SE¼ Sec. 48, K.T.&I. Subd.
Drlg. 1,307 ft.

Fidelity Oil Co.'s No. 1 Fiato, 150 ft. S and E lines, Blk. 14, Sec. 40, K.T.&I. Sur.
Location.

Fidelity Exp. Co.'s No. 1 Sam Michalk et al, 330 ft. from N line and 775 ft. from S line, Blk. 37, Sec. 5; 5 miles SE Kingsville.
T.D. 3,100 ft.; running Schlumberger.

Gordon et al No. 1 Dietz, NE cor. Blk. 10, Sec. 56.
Drlg. 2,520 ft.

LaSalle County

Bier & Witherspoon's No. 1 LaSalle Co., 1,320 ft. S and W lines, Sec. 19, Bland & Nelson Subd., O'Connor ranch.
Spudded in; W.O. rig.

Roy Shipman's No. 1 Coleman, 330 ft. SW cor. Blk. 15, Sur. 514.
S.D. 1,700 ft.

Lee County

J. Spivey's No. 1 First National Bank, 300

ft. S and E lines, 846-ac. tract, Mack Sur.
Location.

Live Oak County

E. H. Buchner's No. 1 McNeill, 300 ft. of SW cor. of 40-ac. tract, Blk. 8, McNeill Subd.
Location.

California Co.'s No. 1 Gillett Community Lands, 2,540 ft. NW line, 450 ft. S line lease, Refugio County School Lands, Sur. No. 7.
Drlg. 3,145 ft.

Earl Calloway's No. 1 Lyne, 895 ft. of W line, 330 ft. of N line, SW¼ SW¼ of M. M. Lyne Sur.
S.D. for water 3,893 ft.

H. H. Coffield's No. 1 Cowie, 250 ft. S and W lines, 130-ac. tr., Allen Sur.
Drlg. 3,510 ft.

Ogden & Reed's No. 1 Reed, 330 ft. SW and NW lines, I.&G.N. R.R. Sur. No. 5, M.I.M.

Santa Clara Oil Co.'s (Atkins & O'Neil) No. 1 Corbett, sec. 2, R. H. Corbett Sur.
Spudding in.

Wheelock & Collins' No. 1 Kirby, 1,650 ft. S line, 5,795 ft. E line, 317-ac. tract, Thos. B. Reese Sur.
Drlg. 1,425 ft.

McMullen County

Aransas Oil Co.'s No. 1 Reed, 330 ft. S line, 1,320 ft. S line, Spicer Sur.
T.D. 1,440 ft.; S.D.

J. F. Camp, No. 1 Byrn estate, Benjamin Odem Sur.
Spudded in.

Darby Pet. Co. No. 2-B Hagist, 330 ft. S and E lines, SE¼ NW¼, Sur. 181.
Drlg. 195 ft.

C. O. Garney's No. 1 Hagist, 330 ft. N and W lines, SE¼, Sur. 6.
Location.

Marso Oil Co.'s No. 1-B Hagist, 330 ft., S and E lines, Sec. 6.
Top sand 2,038 ft.; T.D. 2,061 ft.; testing.

Reliance Oil & Royalty Co.'s No. 1 Shiner, 330 ft. NE cor. Sec. 29, C. C. Shumway Subd.
Drlg. 1,185 ft.

Stewart et al's No. 1 G. Lowe, 2,000 ft. W line, 2,400 ft. S line, Geo. Bright Sur. No. 21.
Drlg. 1,912 ft.

S. Teichman No. 1 Henry, Torres Sur. No. 20.
Drlg. 374 ft.

Texio Oil Co.'s No. 1 Ellen Atkinson, C NW¼ NE¼ Sur. 96.
Top Cole 1,906 ft.; drlg. 2,020 ft.

Medina County

F. Brown's No. 1 Brucks, 900 ft. W line, 660 ft. S line, Brucks tract, John Ward Sur. No. 18.
No report.

Frank Brown's No. 2 Winn, 600 ft. W line, 300 ft. N line, Ward Sur.
Spudded in; S.D.

Joe Dupree's No. 1 Brucks, 404 ft. N line, 165 ft. E line, Castro Sur. No. 248.
S.D. 750 ft.

Ed Falvey's No. 1 McMenemy, 160 ft. S and W lines, Sur. 33.
T.D. 909 ft.; S.D. for repairs.

Gates & Hills' No. 3-B Odem, Castro Sur. No. 174.
Standing; T.D. 465 ft.

Letro Oil Corp.'s No. 1 E. B. Forrest, 1,928 ft. from N line, 1,908 ft. from E line of 640-ac. tract, Blk. 69.
T.D. 680 ft.; running csg.

Nueces County

Bluff Pet. Co.'s No. 1 Bluntzer, 330 ft. SW and SE lines, NE 1,007-ac. tract, Sec. 4 Casa Blanco grant.
Abnd. hole and skidded over; drlg. second hole 1,530 ft.

A. E. Masterson's No. 1 Eschberger, 330 ft. S and W lines, N½ NE¼ Sec. 37, Pauls Subd., Driscoll ranch.
Drlg. 207 ft.

La Jita Corp.'s No. 1 King, C SE¼ SW¼ Sec. 12.
Perforated 5,046-60 ft.; trying to complete.

S. Nelson's No. 1 Buckholt, 990 ft. E line, 150 ft. S line, S 114.3-ac. tract, Blk. 4, Sec. 314.
T.D. 5,000 ft.; running Schlumberger.

H. A. Meyer's No. 1 Harney, 550 ft. W line, 225 ft. S line, 2,200-ac. tract.
Location.

San Patricio County

Benedum & Trees' No. 1 Welder, 2,640 ft N line, 660 ft. W line, Sec. 34.
T.D. 7,148 ft.; preparing to run Schlumberger.

George E. Smith's No. 1 Britton, 330 ft. N and W lines, Lot 8, Sec. 6.
Drlg. 2,864 ft.

Stanolind Oil & Gas Co.'s No. 1 Alamo Iron Works, 1,320 ft. N line, 330 ft. E line, Blk. 17, Fitzsimmons league.
Drlg. shale and lime 1,505 ft.

Willis Storm's No. 1 Hobbs, 621.8 ft. SW line, 677 ft. NW line, 50-ac. tract, Delgado Sur.
T.D. 3,500 ft.; abd.; to skid over for new test.

Starr County

Ash & Tackett's No. 1 Margo, 150 ft. S and E lines, Blk. 4, Share 2-B, Por. 78.
Sand 376-78 ft.; standing; oil in hole to 40 ft. of surface; some gas.

J. H. Clopton's No. 2 Bass, 2,460 ft. E line, Por. 87, 17,409 ft. W of Highway No. 4, Por. 87.
Drlg. 120 ft.

John Clopton No. 3 Ross & Bennett, 6-253 ft. S. M.P. Ry., 3,000 ft. E line, Share 1-A, Por. 92, Jurisdiction of Camargo.
Set sur. csg. 200 ft.; W.O.C.

Cook-Maris Arnold's No. 1 S.C.C.C., 220 ft. N line, 25 ft. E line, Lot 24, Por. 89.
Cored sand 2,465-69 ft.; slight gas show; drlg. 2,483 ft.

McCurry & Yates' No. 1 S.C.C.C., 150 ft. W line, 510 ft. N line, Blk. 58, Porc. 89.
Location.

McCurry & Yates' No. 2 S.C.C.C., 150 ft. E line, 510 ft. N line, Blk. 58, Porc. 89.
Location.

Pedernal Oil Co.'s No. 1 Hicks et al, 187 ft. from NW line, 318 ft. from NE line of Blk. 6, Pedernal Grant.
T.D. 2,210 ft.; S.D.

Hiram M. Reed's No. 1 S.C.C.C., 888 ft. W line, 150 ft. N line, Blk. 66, Jefferies-Lambeth Subd., Porc. 89.
Drlg. 2,623 ft.

Webb County

Austin & Vernon's No. 1 Jeffries, 150 ft NE line, 1,170 ft. SE line, Blk. 13, Sur 1,453.
Set surface csg.; S.D.; T.D. 40 ft.

Clopton & Doffing's No. 1 Slator, center Blk. 29, Borrego grant.
Fishing 2,625 ft.

O. W. Killam's No. 1 Ortiz, 200 ft. SE line, 2,350 ft. S.W. road, Porc. 17.
Drlg. 1,379 ft.

Magnolia Pet. Co.'s No. 1 Garcia-Arribas 330 ft. S and E lines, Blk. 8, Albercas grant.
Cored oil sand 2,833-87 ft.; W.O.C.

Magnolia Pet. Co.'s No. 1 Volpe Bros. 330 ft. N and W lines, Sur. 33b.
T.D. 4,881 ft.; dry and abd.

J. E. Neal No. 1 Laurel Bros., 1,320 ft. S and E lines, Sur. 119.
Cored hard sand 2,117-23 ft.; no odor; drlg. 2,133 ft.

Payne & Martinez's No. 1 Ferry, 150 ft. NE and NW lines, Sur. 177.
Location.

Arthur H. Wray's No. 1 Geo. Stuempge, Share 1, Brewster pasture, Galan grant Rebldg. derrick pulled in while fishing.

S. S. & B. Oil Co.'s No. 6 Lone Star Co., 7,700 ft. NE line, 330 ft. SE line, Por. 12.
T.D. 330 ft.; S.D.

Willacy County

Kingwood Oil Co.'s No. 1 Santa Rosa, Inc. 160 ft. from E line, 637 ft. from S line of Sec. 30, Blk. 16, Share 44, San Juan de Carricitas grant.
Preparing to perforate at 5,000-15 ft.

Zapata County

Murt Cullinan's No. 1 Gutierrez, Blk. 4, Share 2, Fansler Partition, Comitas Grant.
Set sur. csg. 40 ft.; W.O.C.

J. J. O'Hern's No. 1 Raymond, 330 ft. NW line, 330 ft. NE line, Blk. 5, Share E, Por. 27.
S.D. 2,208 ft.

S. W. TEXAS PROVEN

Week Ending November 30

Caesar—Bee County

Caesar Oil Co.'s No. 6 R. E. Miller, N offset to Commodor's No. 4 Grissom.
Location.

Luling Oil & Gas Co.'s No. 1-B Hudman, 440 ft. SW No. 4 Hudman.
Sand 2,072-82 ft.; comp. 234 bbls. per day on ¼-in. choke; T.P. 210 lbs.; C.P. 450 lbs.

Sun Oil Co.'s No. 1 Barroum, 990 ft. N line, 330 ft. E line lease.
Location.

Dirks—Bee County

Illinois Pet. Co.'s No. 2 Rapp, 330 ft. N line, 66-ac. tract, 660 ft. W No. 1 Rapp, C. A. Dugat Sur.
Location.

Illinois Pet. Co.'s No. 3 Rapp, 330 ft. N line 66-ac. tract, 660 ft. W No. 2 Rapp, C. A. Dugat Sur.
Location.

Sun Oil Co.'s No. 4 Page, 660 ft. NE No. 2 Page, 330 ft. SE line lease, Young Sur.
Drlg. 1,820 ft.

Texas Co.'s No. 3 Young, 330 ft. S and W lines, G. W. Young Sur.
Sand 3,787-99 ft. and 3,815-23 ft.; comp. 19 bbls. per hour on ¼-in. choke; T.P. 400 lbs.; C.P. 750 lbs.

Texas Co. No. 12 Young, 660 ft. W No. 6, G. W. Young Sur.
Rigging up.

Texas Co. No. 13 Young, 580 ft. NE No. 11, T. J. Butler Sur., Abst. No. 411.
Derrick.

Ray—Bee County

J. R. Hill's No. 2-A Ray, 1,447 ft. SE line lease, 660 ft. NW No. 1-A Ray.
Sand 3,953-57 ft.; drlg. plugs.

Simms Oil Co.'s No. 5 Ray, 330 ft. NW line, 1,447 ft. NE line lease, W. B. Blanchard Sur., Abs. 133.
Sand 3,936-41 ft.; comp.; no gauge.

Simms Oil Co.'s No. 6 Ray, 660 ft. SE No. 5 Ray, 1,447 ft. NE line of lease, W. B. Blanchard Sur.
Sand 3,936-40 ft.; W.O.C.

Simms Oil Co.'s No. 1-B Campbell, 150 ft. S and E lines, Lot 19, Bucher Subd., W. B. Blanchard Sur.
Moving in material.

Sun Oil Co.'s No. 3 Ray, 660 ft. W No. 2 Ray.
Rigged up.

R. J. Worthington's No. 1 Chestnut, 330 ft. NW cor. 40-ac. tract, B. O. Hadley Sur.
Spudded in; S.D.

Rutledge—Bee County

Werth Oil Co.'s No. 4 Rutledge, 660 ft. S No. 2 Rutledge, Hadley Sur.
Location.

Tuleta—Bee County

Highland Oil Co.'s No. 4 Campbell, 40-ac tract, B.&B. Sur.
Spudded in.

Government Wells Pool—Duval County

Government Wells Oil Corp. No. 19 Lundell, NW¼ NE¼, Sur. 48.
Moving in material.

Government Wells Oil Corp.'s No. 16 Lundell, Sur. 48.
T.D. 2,283 ft.; comp. small gas well.

Magnolia Pet. Co.'s No. 3 Moody, NW¼ SW¼ Sur. 60.
Comp. 100 bbls. per day; T.D. 2,553 ft.

Magnolia Pet. Co.'s No. 9 Johnson, center ⅛, E½, Sur. 44.
Derrick.

Hoffman—Duval County

Argo Oil & Royalty Co. No. 1 Smith-Corkill, N½, Sur. 61.
Location.

Kohler—Duval County

California Co.'s No. 1 Kohler, 330 ft. N line, 2,597 ft. W line tract.
Comp. 25,000,000 ft. gas per day; T.D. 2,575 ft.; rock pressure 800 lbs.

Loma Novia—Duval County

Bridwell Oil Co. No. 2 Pennia, Blk. 7, Sur. 78.
Rigging up.

Bridwell Oil Co. No. 1 Pennies, 330 ft. S and E lines, Blk. 7, Sec. 78.
Top sand 2,564-73 ft.; comp. 30 bbls. per hour on ½-in. choke; T.D. 2,589 ft.

Buchanan & Blanco Oil Co.'s No. 1-B Russ, 185 ft. N line, 1,650 ft. E line, Sur. 7.
Location.

Rodney DeLange No. 3 B.C.C., 330 ft. N and W lines, SE¼ SE¼, Sur. 76.
Drlg. 2,310 ft.

Rodney DeLange No. 3 DuVon, SW¼ NE¼ Sur. 76.
Drlg. 321 ft.

Rodney DeLange's No. 4 C. W. Hahl, Sur. 78.
Derrick.

Duval Oil Corp. No. 3 Hahl, 330 ft. N line, 255 ft. E line, Sur. 78.
Location.

Duval Oil Corp. No. 1-B Moody, 330 ft. N and E lines, NE 80-ac. tract, Sur. 76.
Top sand 2,610 ft.; recmtd. csg.; drlg. in.

Frank Gravis, No. 2 Byland, 330 ft. S and E lines, Blk. 4, Sur. 78.
Comp. 35 bbls. per hour open tubing; T.D. 2,500 ft.

Gravis & Gilcrease Oil Co. No. 3 Byland, Blk. 4, Sur. 78.
Rigging up.

Hamill, Smith & Ogden No. 1 Hahl, 330 ft. N and E lines, NW¼, Sur. 76.
Derrick.

Hamill, Smith & Ogden No. 6 Hahl, 18.3-ac. tract, Sur. 78.
Location.

Hamill, Smith & Ogden No. 29 Hubbard, 330 ft. NE cor. NE¼ SW¼, Sur. 77.
Drlg. 1,976 ft.

Hamill, Smith & Ogden's No. 3 Hahl, 330 ft. N line, 200 ft. E line, 18.3-ac. tract; Sur. 78.
Comp. 26 bbls. per hour, ½-in. choke.

Hamill, Smith & Ogden's No. 4 Hahl, 330 ft. N and W lines, 18.3-ac. tract, Sur. 78.
Drlg. 1,982 ft.

Hamill, Smith & Ogden's No. 13 Hubbard, 330 ft. N and E lines, NE¼, SE¼, Sec. 77.
Derrick.

Hamill, Smith & Ogden's No. 14 Hubbard, 330 ft. S and E lines, NE¼, SE¼, Sec. 77.
Location.

Hamill, Smith & Ogden's No. 28 Hubbard, 330 ft. SE cor., SE¼ NW¼ Sur. 77.
Comp. 240 bbls. per day; sand 2,678-97 ft.

Hamill, Smith & Ogden's No. 32 Hubbard, 330 ft. SE cor. SE¼ SW¼ Sur. 77.
Location.

Highland Oil Co. No. 1 B.C.C., W½ SW¼ Sur. 76.
Testing 2,612 ft.

Humble O. & R. Co.'s No. 3-D Welder, 330 ft. S and E lines, sec. 72, S.K.&K. Sur.
Drlg. shale 3,310 ft.

Humble O. & R. Co. No. 4 M. C. Hubbard, 330 ft. W line, 1,650 ft. S line, 320-ac. tract, Sec. 84.
Drlg. sandy shale 2,289 ft.

Lipscomb and Daubert's No. 3 Hubbard, 330 ft. S and E lines, S½, NE¼, Sur. 75.
Location.

Magnolia Pet. Co. No. 6 Hahl, Sur. 67.
Drlg. 3,460 ft.

Magnolia Pet. Co. No. 13 Hahl, 640-ac. tract, Sur. 67.
Location.

J. I. Newton No. 1 Brodbeck, 330 ft. N and E lines, N½ NW¼, Sur. 76.
Location.

Reynosa Oil Co. No. 1 Jackson, Sur. 114.
Rigging up.

Rosen Oil Co. No. 4 Hubbard, E½, Sur. 71.
Rigging up.

Rosan Oil Co.'s No. 1 Hubbard, 330 ft. N and W lines, E½ Sur. 71.
Sand 2,770-78 ft.; comp. 60 bbls. per hour open tubing.

Russ Pet. Co.'s No. 1 Duke, 330 ft. N and W lines, 40-ac. tract, Sec. 64, J. Poitevent Sur.
Location.

Shell Pet. Corp. No. 16 Hubbard, 974 ft. W line, 330 ft. N line, E½, Sur. 77.
Derrick.

Shell Pet. Corp.'s No. 1 Hahl, 330 ft. N and E lines lease, Sur. 78.
Sand 2,458-75 ft.; D.S.T.; 15 ft. mud.

Shell Pet. Corp.'s No. 13 Hubbard, 1,746 ft. N line, 330 ft. W line, E½ Sur. 77.
Set csg. 2,689 ft.; W.O.C.

Shell Pet. Corp. No. 14 Hubbard, E½ Sur. 77.
Derrick.

Shell Pet. Corp.'s No. 15 Hubbard, 1,780 ft. N line, 330 ft. E line, E½ Sur. 77.
Swabbed 10 bbls. per hour; C.P. 140 lbs.; T.D. 2,788 ft.

Texas Co. No. 13 Vela, S½, Sur. 42.
Location.

Texas Co. No. 14 Vela, S½, Sur. 42.
Location.

Texas Co. No. 2 Hugo Wendt, 330 ft. N line, 1,593 ft. W line, 458-ac. tract, Guffey Sur. 68.
Derrick.

Texas Co. No. 11 Vela, Sur. 42.
Drlg. 2,614 ft.

Texas Co. No. 12 Vela, Sur. 42.
Drlg. 1,020 ft.

Texas No. No. 13 Wendt, 330 ft. S line, 3,630 ft. W line, 458-ac. tract, Sec. 68.
Set sur. csg. 95 ft.; W.O.C.

Texas Co. No. 14 Wendt, 330 ft. S line, 4,290 ft. W line, 458-ac. tract, Sec. 68.
Location.

Texas Co. No. 15 Wendt, 330 ft. S line, 4,950 ft. W line, 458-ac. tract, Sec. 68.
Location.

Piedras Pintas—Duval County

P. K. Kelly's No. 1 Tinney, 200 ft. E line, 1,100 ft. N line, Sur. 8.
T.D. 805 ft.; dry and abd.

Sarnosa—Duval County

Magnolia Pet. Co. No. 1 D.C.R.C., Sur. 573.
Moving in material.

Seven Sisters—Duval County

Atlantic Oil Prod. Co.'s No. 3 B. Welder, W½ SE¼ Sur. 385.
Location.

Buchanan & Blanco Oil Co. No. 4 Wood-Welder, 660 ft. S No. 2, 330 ft. W line, 82.1-ac. tract, Sec. 385.
Drlg. 953 ft.

Buchanan-Blanco Oil Co.'s No. 3 Wood-Welder, 990 ft. N line, 330 ft. E line, 82.1-ac. tr., sec. 385.
Comp. 30 bbls per hour; sand 2,473-88 ft.

Daube & Westheimer's No. 1-Z Campos, 330 ft. S and W lines, Sur. 224.
Chernosky sand 2,202-10 ft.; D.S.T. 2,-202-28 ft.; 15 min. on ⅜-in. chokes; 1,900 ft. oil; W.O.C.

Diamond Half Oil Co. No. 1 R. Serna, 330 ft. N and W lines, N½ NE¼, Sur. 384.
Location.

Henderson & Harvey's No. 1 Wood-Welder, 330 ft. S and W lines, NE¼, SE¼, Sur. 381.
Drlg. 1,400 ft.

Humble O. & R. Co.'s No. 4 T. D. Smith, 990 ft. E line, 2,090 ft. N line, sec. 382, B.S.&F. Sur.
Sand 2,452-65 ft.; set csg. 2,452 ft.; W.O.C.

Mid-Continent Pet. Corp.'s No. 3 Serna, S½ N½ Sur. 384.
Set csg. 2,494 ft.; swabbing.

Mid-Continent Pet. Corp. No. 4 Serna, 990 ft. E line, 2,080 ft. N line, Sur. 382.
Moving in material.

T. P. Morgan's No. 1 Wood-Welder, Sur. 591.
T.D. 2,351 ft.; waiting on orders.

Navarro Oil Co. No. 1 J. F. Welder, 330 ft. E line, 2,970 ft. N line, Sur. 383.
Location.

Santa Clara Oil Co. (Atkins & O'Neil) No. 11 Wood-Welder, 990 ft. S line, 1,650 ft. E line, NW¼ Sur. 385.
Drlg. 1,175 ft.

Pearsall—Frio County

Amerada Pet. Co. No. 1 Michael, 1,400 ft. N line, 466 ft. W line, Alexander Lynch Sur. 321.
Spudding in.

Hords Creek—Goliad County

Brown & Wheeler, Inc.'s No. 1 Kauffman, 1,650 ft. NW line, 330 ft. NE line, 4,-265.06-ac. tract, Trevino Sur.
T.D. 4,581 ft.; P.B. to 4,566 ft.; cleaning 8 bbls. per hr. on 1/8-inch choke, later changed to 1/16-inch choke.

M. I. Richardson's No. 1 Kaufan, 330 ft. NW and SW lines, 40-ac. tr.
Location.

Sun Oil Co.'s No. 1 Kaufman, 990 ft. SE line, 330 ft. SW line lease, Trevino Sur.
Digging pits.

North Pettus—Goliad County

Jane Oil Co.'s No. 5 Smith, 990 ft. SW line, 330 ft. SE line, B.&B. Sur. No. 35.
Drlg. 2,043 ft.

Southwest Darst Creek—Guadalupe

Doody Oil Co.'s No. 2 Katy Lay, 150 ft. N line, 342 ft. E No. 1, J. K. Davis Sur.
Drlg. 873 ft.

Amy Oil Co.'s No. 2 Larison, 150 ft. W line, 300 ft. SW No. 1, Dewitt Sur.
Set csg. 2,430 ft; W.O.C.

Stegal & Gallagher's No. 2 Lay, 20-ac. tr., Davis Sur.
Spudded in.

Mercedes—Hidalgo County

Union Sulphur Co.'s No. 5 American Rio Grande L. & I. Co., 330 ft. N line, 350 ft. W line, Tract 2,082.
Milling csg. to sidetrack 7,438 ft.

Union Sulphur Co.'s No. 6 American Rio Grande L. & I. Co., Tract 2,258, Blk. 18.
T.D. 7,596 ft.; P.B. to 7,482 ft.; set csg. 7,482 ft.; to test sand 7,482-98 ft.

Samfordyce—Hidalgo County

J. H. Anderson's No. 1 Guerra, 233 ft. N line, 235 ft. W line, Tract 254, Por. 39. Location.

Weekly Oil Corp.'s (Cortez) No. 2-C Smith, 230 ft. from N line, 690 ft. from W line of NE 40 acres of Tract B-3, Porcion 41. Location.

Weekly Oil Corp.'s (Cortez) No. 3-C Smith, 230 ft. from N line, 1,150 ft. from W line of NE 40 acres of Tract B-3, Porcion 41. Location.

Ralph E. Fair, Inc.'s (Kingwood) No. 4 Guerra, 165 ft. S line, 1,150 ft. E line Share 12, Por. 41. Location.

Harrison, Davis & Bishop's No. 1 Guerra, 230 ft. S line, 616 ft. W line, S 40-ac., Tract 12, Por. 41. M.I.M.

Harrison-Davis-Bishop's No. 6 Guerra, 230 ft. N and E lines, 40-ac. tract, Tract 12, Por. 41.
Sand 2,767-72.5 ft.; comp. est. 25 bbls. per hour on ½-in. choke; perforated 2,769-72.5 ft.

Harrison-Davis-Bishop's No. 7 Guerra, 230 ft. N line, 623 ft. E line, 40-ac. tract, Tract 12, Por. 41.
Skidding derrick and moving in material.

Harrison-Davis-Bishop's No. 8 Guerra, 230 ft. N line, 1,083 ft. E line, 40-ac. tract, Tract 12, Por. 41. Location.

Harrison-Davis-Bishop's No. 9 Guerra, 230 ft. N and W lines, 40-ac. tract, Tract 12, Por. 41. Location.

Hill & Hill's No. 1 Guerra, 150 ft. S and W lines, NE 12.5-ac., S 75-ac.; Tract 254, Porc. 40.
Sand 2,805-15 ft.; D.S.T. 41 thribbles oil in 14 min.; no pressure; set csg. 2,799 ft.; W.O.C.

W. F. Lacey No. 2-B Seabury, 250 ft. N and E lines, NE 10-ac., SE 51-ac., Tract 256, Por. 38.
Comp. 65 bbls. per day on ¼-in. choke; sand 2,788-92.5 ft.; T.P. 100 lbs.; C.P. 400 lbs.

W. F. Lacey's No. 1 Lula George, 75 ft. S and W lines, 5-ac. tract, Tract 13, Por. 41. Location.

W. F. Lacey's No. 2 Lula George, 75 ft. S and W lines, 10-ac. tract, Tract 13, Por. 41. Location.

W. F. Lacey's No. 3 Lula George, 75 ft. S line, 550 ft. W line, 10-ac. tract, Tract 13, Por. 41. Location.

Navarro Oil Co. No. 1 Francisco Guerra, 230 ft. S and E lines, 20-ac. tract, Tract 12, Por. 41. Location.

North Pettus—Karnes County

Magnolia Pet. Co.'s No. 10 Porter, 330 ft. SW line of lease, 660 ft. NW No. 1.
Oil sand 3,670-80 ft.; comp. swabbing 27.4 bbls. in 7 hrs.

Magnolia Pet. Co.'s No. 11 Porter, 564-ac. tract, B.&B. Sur.
Comp. 4 bbls. per hour in 5/16-in. choke; C.P. 320 lbs.

Kingsville—Kleberg County

Fidelity & Culbertson Exploration Co.'s No. 2 Henry, Lot 2, Blk. 49. Location.

Fort Merrill—Live Oak County

Slick-Urschel Oil Co.'s No. 1 Watson & Shipp, 330 ft. NE line, 990 ft. SE line lease, offset Mills Bennett's No. 1 discovery well.
Rigging up.

McNeill—Live Oak County

Benco Oil Corp.'s No. 1 E. Mahoney, 155 ft. from NW line of J. H. Harvey tract, 3,109 ft. SW of highway in Mark Killelly Sur.
S.D. 78 ft.

Luray Oil Co.'s No. 1 Little, NE offset, Whittington's No. 2 Little, M. M. Shipp Sur.
T.D. 5,016 ft.; reaming.

J. O. Whittington's No. 4 Little, 990 ft. S and E lines, Shipp Sur. Location.

Jacob Pool—McMullen County

Loma Oil Co. No. 42-A Jacobs, 2,030 ft. S line, 880 ft. W line, 640-ac. tract "A," Jacobs Sur. 9.
Drlg. 990 ft.

L. D. Ormsby No. 4 Griffith, Blk. 4, Sec. 5.
Dry and abd. 900 ft.

Chas. Weist's No. 1 Lark, 150 ft. S and W lines, NW¼, Sec. 114.
Rigging up.

Baldwin—Nueces County

Gilcrease Oil Co.'s No. 3 Sanders, 910 ft. N line, 990 ft. E line, 100-ac. tract, B.S.&F. Sur. 165.
Drlg. green shale 4,167 ft.

Houston Oil Co.'s No. 4 Baldwin, 330 ft. N and E lines 425-ac. tract, B.S.&F. Sur. No. 165.
Location.

Magnolia Pet. Co.'s No. 4 Baldwin, 330 ft. N and W lines, 1,005-ac. tract, Sur. 165. T.D. 5,195 ft.; P.B. 4,070 ft.; set csg. 3,244 ft.; W.O.C.

Magnolia Pet. Co.'s No. 2 Sanders, 330 ft. N and E lines, 100-ac. tract, B.S.&F. Sur. 165.
Comp. 5 bbls. per hour; T.D. 4,065 ft.

Corpus Christi—Nueces County

J. K. Culton No. 1 Russell Savage, 220 ft. E line, 330 ft. S line, 7-ac. tract, Villareal Sur.
Comp. cleaning 250 bbls. per day; fluid 50 per cent oil on 5/32-in. choke; C.P. 600 lbs.; T.P. 700 lbs.

J. K. Culton No. 1 Margaret Whelan, 230 ft. S line, 330 ft. E line, 22-ac. tract, Villareal Sur.
Moving in material.

Richardson Oil Co. No. 1 Krus, 230 ft. E line, 225 ft. S line, 6-ac. tract, Villareal Sur.
Moving in material.

Saxet—Nueces County

Conservative Oil Co.'s No. 2 K. Hutchins, 330 ft. S line, 430 ft. W line, Blk. 29. S.D. 1,044 ft.

Houston Oil Co.'s No. 2 Hunter, 330 ft. S and E lines, lease, Sur. 586.
Testing 4,860 ft.

Houston Oil Co.'s No. 5 Walton, 330 ft. NE line, 542.28-ac. tr., Villareal Survey. Location.

Houston Oil Co.'s No. 7 Morgan, 330 ft. N and W lines, 494.8-ac. tr., Sec. 7. Location.

Houston Oil Co.'s No. 8 Morgan, 330 ft. N line, 967 ft. W line, 494.8-ac. tr., sec. 7. Location.

Houston Oil Co.'s No. 3 Harrell, 330 ft. N and E lines, Block 19, Sheppard Farm Lots.
Drlg. 325 ft.

Houston Oil Co.'s No. 3 Hunter, 330 ft. S and W lines, 159.87-ac. tr., Sur. 586. Location.

Houston Oil Co.'s No. 2 Isensee, 330 ft. S and E lines, 40-ac. tract.
T.D. 4,538 ft.; preparing for D.S.T. 4,-531-38 ft.

Magnolia Pet. Co.'s No. 2 Sanders, 330 ft. SW cor. 110-ac. tract, Sec. 165, B.S.&F. Sur.
Derrick.

Republic Natural Gas Co.'s No. 11 Dunn, 330 ft. S line, 660 ft. SE No. 10.
Sand 4,841-48 ft.; comp.; no gauge.

Southern Minerals Corp. No. 2-A Isensee, 658 ft. E line, 116 ft. S line, 17-ac. tract, C. Land Sur., Abst. 975.
Rigging up.

Southern Minerals Corp.'s No. 3 Sally Page, 330 ft. S and E lines, 75-ac. tract, Sur. 586.
Set sur. csg.; W.O.C.

Texon Royalty Co.'s No. 1 Taggert, 330 ft. N and E lines, Block 5, Sur. 401.
Drlg. 4,143 ft.

Texan Royalty & Lucey No. 3 Isensee, 660 ft. W, 140 ft. S lines, Blk. 21, Sheppard farm lots.
Rigging up.

Plymouth—San Patricio County

Conroe Drlg. Co.'s No. 3 D. Welder, sec. 47.
Drlg. hard shale 5,413 ft.

Conroe Drlg. Co.'s No. 2 D. Welder, Sec. 47.
Sand 5,616-28 ft.; comp. 396 bbls. per day on 3/16-in. choke; C.P. 610 lbs.; T.P. 925 lbs.

Conroe Drlg. Co. No. 1-G Welder, 466 ft. E line, 10 ft. S line, Sec. 47.
Rigging up.

Heep Oil Corp. No. 12-E Welder, 933 ft. W, 932 ft. S, No. 9-E.
Drlg. 3,925 ft.

Plymouth Oil Co.'s No. 21-C Welder, 466 ft. W line, 2,332 ft. S line, Sec. 71.
Comp.; no gauge; 500 lbs. C.P.; 480 lbs. T.P. on ¼-in. choke.

Plymouth Oil Co.'s No. 22-C Welder, 466 ft. W line, 1,599 ft. S line, sec. 71.
Set csg. 5,639 ft.; W.O.C.

Plymouth Oil Co.'s No. 23-C Welder, 933 ft. N, No. 20-C, 300 ft. Chiltipin Cr.
Drlg. 4,030 ft.

Plymouth Oil Co.'s No. 24-C Welder, 936 ft. W line, 5,893 ft. S line, Sec. 71.
Rigging up.

Sun Oil Co.'s No. 2 Hunt, Blk. 34, Lot 5.
Comp. 35 bbls. in 5½ hrs. on 5/32-in. choke; T.D. 5,624 ft.; C.P. 1,060 lbs.; T.P. 1,500 lbs.

Sun Oil Co. No. 3 Hunt, 466 ft. N and E lines lease, Blk. 34, Lot 5.
Rigging up.

Barbacoas—Starr County

T. K. Irwin et al's No. 1 S.C.C.C., 150 ft. S and W lines, Blk. 58, Por. 89.
Plugged back 2,320 ft.; standing.

Rio Grande—Starr County

W. W. Zimmerman's No. 3 D.&C., 522 ft. W line, 450 ft. S line, Blk. 1, Tract A-77. Por. 81.
Oil sand cored 1,464-71 ft.; comp. 10 bbls. per day.

Samfordyce—Starr County

Phillips & Barnsdall's No. 4 Yturria L. & L. Co., 330 ft. E line, 874 ft. S line, 110-ac. tract. E½ Por. 100.
Sand 2,790-2,803 ft.; set csg.; W.O.C.

Porter & Pickens No. 2-A Garcia Land & Cattle Co., Blks. 4 and 5, W½ Por. 100.
Sand 2,806-11.5 ft.; set. csg.; W.O.C.

Porter & Pickens' No. 2-B Garcia Land & Cattle Co., 330 ft. N and W lines, 60-ac tract, NW cor. Blk. 4, Por. 100. Location.

Porter & Pickens' No. 3-B Garcia Land & Cattle Co., 330 ft. W line, 914 ft. S line. 60-ac. tract, Blk. 5, Por. 100. Location.

Skelly Oil Co.'s No. 8 Seabury, 219 ft. N line, 198 ft. W line, 12-ac. tract, Tract 256, Por. 38. Location.

Skelly Oil Co.'s No. 9 Seabury, 330 ft. N line, 230 ft. W line, 24-ac. tract, Tract 256, Por. 38.
Sand 2,804.5-10.5 ft.; comp. 90 bbls. in 17 hrs. on ¼-in. choke; perf. 2,809-13 ft.; T.P. 325 lbs.; C.P. 1,000 lbs.

Skelly Oil Co.'s No. 10 Seabury, 440 ft. N line, 230 ft. E line, 24-ac. tract, Tract 256, Por. 38. Location.

Skelly Oil Co.'s No. 6 Seabury, 219 ft. S line, 248 ft. E line, E 15-ac., NW 30-ac., S 262.8-ac., Tract 254, Por. 38, J. of Reynoss. Location.

Lopez—Webb County

C. F. Lewis' No. 2 Lopez, 330 ft. N and W lines, Sur. 110.
Rigging up.

Mills Bennett Prod. Co. No. 3 Montemayor, 2,310 ft. W line, 2,042 ft. N line, Sur. 114. Drlg. 1,832 ft.

Mills Bennett Prod. Co. No. 4 Montemayor, Sec. 114.
Comp. 456 bbls. per day; T.D. 2,188½ ft.; C.P. 280 lbs.; T.P. 80 lbs.

Montour Prod. Co.'s No. 1 Coffey, 330 ft. W line, 2,691 ft. S line, 80-ac. tract, Sur. 111.
Drlg. water well.

Mills Bennett Prod. Co.'s No. 1 A. Lopez, SW cor. tract, Share 13, Tract 111. Location.

G. G. Mortimer's No. 1-A Montemayor, 330 ft. N and W lines lease, Sur. 114. Location.

G. G. Mortimer's No. 3 M. Lopez, Sur. 73.
Comp. 12 bbls. per hour on ½-in. choke; T.D. 2,153 ft.

G. G. Mortimer No. 4 M. Lopez, Sec. 73.
Rigging up.

G. G. Mortimer No. 1 Maria Lopez, Sec. 112.
Moving in material.

G. G. Mortimer's No. 1-A J. Lopez, 990 ft. W line, 330 ft. S line, Sur. 111.
T.D. 2,253 ft.; comp.; no gauge.

Nixon & Tabot's No. 1 Billings, 990 ft. E line, 975 ft. S line, Sur. 113.
Sand 2,170-77 ft.; comp. 15 bbls. per hour.

Sierra Oil & Royalties Co. (Nixon & Talbot) No. 2 Billings, Sur. 113.
Moving in material.

Superior Oil Co. No. 2 Billings, Sur. 109.
Moving in material.

O'Hern—Webb County

O. W. Killam's No. 43 Bruni, Sur. 9, Foltz Subd., Arispe grant.
Drlg. 1,530 ft.

Magnolia Pet. Co.'s No. 19 Brennan-Benavides, C Blk. 285.
Set csg. 2,750 ft.; W.O.C.

Magnolia Pet. Co.'s No. 21 Brennan-Benavides, center Blk. 152.
Drlg. 252 ft.

Magnolia Pet. Co. No. 4-X Benavides, center Blk. 156, Hale Subd., Arispe grant. Location.

James P. Nash No. 1-A Benavides, Blk. 294, Hale Subd., Arispe grant.
Comp. 15 bbls. per hour; T.D. 2,846 ft.

J. J. O'Hern's No. 4 Brennan-Benavides, 347 ft. NW line, 313 ft. SW line, Blk. 190. Location.

Texas Co. No. 8 Brennan-Benavides, center Blk. 294, Hale Subd., Arispe grant.
Rigging up.

Texla Oil Corp. No. 1 S. Benavides, center Blk. 294, Hale Subd. Location.

Texla Oil Co. and Nash No. 1-B S. Benavides, center Blk. 293, Hale Subd. Location.

Escobas—Zapata County

S. R. C. Oil Corp.'s No. 16-A Trevino, 2,640 ft. E line, 330 ft. S line, Sur. 66. Location.

Texas Co. No. 80 Whitehead, Cerrito Blanco grant.
Drlg. 1,060 ft.

Haynes—Zapata County

Clover Oil & Gas Co.-James P. Nash's No. 2 Haynes, Blk. 7, Haynes Subd., Comitas & Villa grants.
Comp. pumping 50 bbls. per day; T.D. 853 ft.

Clover Oil & Gas Co.-James P. Nash No. 3 Haynes, Haynes Subd., Comitas & Villa grant. Location.

E. C. TEXAS WILDCATS

Week Ending November 30

Cayuga Area—Anderson County

Tide Water Oil Co. et al's No. 21-A Willa 4,079 ft. N and 2,333 ft. W of lease, S Edmondson Sur. (Trinity test).
T.D. 9,085 ft.; P.B. 7,416 ft.; making 130 bbls. fluid per day, 60 per cent distillate with 6,300,000 ft. gas through ½-in. choke; shut in.

Long Lake Area—Anderson County

Tide Water Oil Co. et al's No. 3 Shaw & Cern, 933 ft. W of No. 1, D. Parker Sur. Elev. 301 ft.; Pecan Gap 3,525 ft.; drlg. 3,680 ft.

Standard Oil Co. of Kansas' No. 1 Robinson & Hombs, 2,300 ft. from W and midway of N and S lines of lease, J. Adams Survey.
Elev. 299 ft.; drlg. 3,662 ft.

Angelina County

Schafer Co. No. 1 Phelps, 400 ft. from S and 150 ft. from W line of 320-ac. tract of J. J. Anselmo Sur., 1 mile NE of Diboll.
Drlg. 531 ft.

Morris et al's No. 1 Pruyear, cen. 165-ac. tract, Thos. Hank Sur., 7 miles E of Huntington.
Drlg. 360 ft.

Bowie County

R. J. Russell's No. 1 O. A. Hall, 2,350 ft. W line and 1,100 ft. S line of R. F. Peters Sur., SW cor. of county.
Top Pecan 1,646 ft.; elev. 316 ft.; drlg. 2,700 ft.

Tex-Ark. Oil Co.'s No. 1 Hamilton Estate, 600 ft. E and 350 ft. N lines, J. Milan Sur., 4 miles S of Red River.
S.D. 1,121 ft.

Woodley & Bentley's No. 1 Lumpkin, 330 ft. out of NE cor. of 345-ac. tract, J. McDermot Sur., 1 mile SW of Dalby Springs.
S.D. 120 ft.

Cherokee County

Rowe-Hynes et al No. 1 H. L. Walker, 330 ft. from N and E of 51-ac. tract, A. Gibson Sur., 1½ miles NW of Mt. Selman.
Rigged up.

Wilson Stubbs Oil Co.'s No. 1 Rowborta, 450 ft. from S line, 150 ft. from W line of 100-ac. tract, 2 miles SW of Jacksonville, J. D. Wolfin Sur.
S.D. 1,555 ft.

Collin County

Port Bolivar O. & R. Co.'s No. 1-A Dunning, 24 ft. W of No. 1, Wm. Creager Sur., 2 miles SE of Van Alystin.
Elev. 722 ft.; drlg. 3,761 ft.

Port Bolivar O. & R. Co.'s No. 1 J. Shirley, 330 ft. N and W of 310-ac. tract, J. Sorrell Sur., 4 miles SE of Anna.
Elev. 684 ft.; S.D. 1,963 ft.; skidded 60 ft. north.

Ellis County

Beasley O. & G. Co.'s Inc.'s No. 1 E. Roller, 1,000 ft. from NW and 1,500 ft. from SW line of Sur.
S.D. 160 ft.

Fannin County

Warner Moore et al's No. 2 Hancock Est., 1,200 ft. N and 500 ft. E of L. M. Baldock Sur., 1 mile E of Trenton. Location.

Warner Moore et al's No. 1 Hancock, 400 ft. from W and 150 ft. N lines, Sec. 16, L. M. Baldock Sur., ½ mile S of Trenton.
Top sand 645 ft.; S.D. 689 ft.

R. Franklin Smith-Allen's No. 1 Argo, center of 16½-ac. tract in J. G. Swisher Sur.
S.D. 1,393 ft.

Freestone County

J. J. Leighton et al's No. 1 G. Cochran, 330 ft. from N and W of 100-ac. tract, D. Bullock Sur., 6 miles S of League. Base Austin 4,216 ft.; drlg. 4,832 ft.

Grayson County

Olson Drlg. Co.'s No. 1 Southwestern Life Ins. Co., center of 160-ac. tract and J. C. Jamison Sur., 6 miles NW of Denison.
Elev. 767 ft.; drlg. 3,567 ft.

Port Bolivar O. & R. Co.'s No. 1 C. Taylor, 330 ft. S and W of 1,543-ac. tract, Fitzhugh Sur., 2¼ miles SE of Gunter.
Drlg. 3,400 ft.

Henderson County

C. & G. Oil Co.'s No. 1 Sterrett, 850 ft. from S and 200 ft. from W of Isham Marshall Sur.
S.D. 700 ft.

H. M. Wilson's No. 1 fee, 970 varas S of NE cor. of 943-ac. tract, 5 miles N of Malakoff.
Drlg. 770 ft.

Hill County

Roger Lacey et al's No. 1 J. H. Atchison Est., 330 ft. S and E of E. Carroll Sur., 5 miles W of Hillsboro.
Drlg. 2,100 ft.

Kaufman County

Murry & Emerson's No. 1 G. W. Martin 1,650 ft. from W and 20 ft. from N of 140-ac. tract, from W. L. C. Butler Sur., 2 miles NE of Kemp.
Top Austin 1,940-74 ft.; S.D. 2,402 ft.; sidetracking tools.

Lamar County

Bruce Bros. No. 1 Chas. Price, 300 ft. from S of most southerly SW cor. and 1,000 ft. from W line of Wm. Nelson Sur., 10 miles NE of Paris, 1 mile W of Trout.
S.D. 336 ft.

L. W. Dennis' No. 1 W. C. Clark, 800 ft. from E and 1,300 ft. from N line of G. H. Hall Sur., 3 miles NE of Reno.
Derrick.

L. W. Dennis, trustee's No. 1 Mrs. E. Lawrence, 300 ft. from N and 1,160 ft. from W of T. B. Roundtree Sur., 2 miles NE of Blossom.
Derrick.

Geo. Greer et al's No. 1 Calvin Marshall, 921 ft. from S and 2,292 ft. from E line of survey, 7 miles NE of Blossom in M.E.P.R.R. Sur. Location.

Texas-Gulf Pet. Co.'s No. 1 A. L. Darnell, 1,490 varas from S and 1,080 varas from W line of H. L. Williams Sur., 4 miles NE of Paris.
S.D. 2,620 ft.

North Texas Synd., Eric T. Bradley, tr.'s No. 1 Wright, Alfred Moore Sur., 1,600 ft. S and 4,300 ft. from E line of Sur.
S.D. 2,644 ft.; tested salt water.

Limestone County

D. Crawford's No. 1 Mary Ward, 150 ft.

out of NE cor. 38-ac. tract, P. Varella Sur.
S.D. 3,001 ft.; preparing to swab.

McLennan County

T. Cunningham's No. 1 M. G. McKee, 940 ft. from S and 2,640 ft. W of 640-ac. tract, M. Snell Sur., near Bruceville.
Derrick.
Riley & Barrow's No. 1 Hortsman, V. C. Walters Sur., 500 ft. from most northerly N line, 500 ft. from most westerly E line, 500-ac. tract, 1¼ miles S McGregor.
S.D. 475 ft.

Nacogdoches County

Rosser Bros. & Jackson's No. 1 Mattby, 330 ft. out of NE cor. 60-ac. tract, Pedro J. Esparza Sur., 5 miles S of Nacogdoches.
S.D. 565 ft.

Navarro County

McCullough et al's No. 1 C. Berry, 330 ft. from SE cor. of 35-ac. tract, 1 mile W of Dawson, William Moss Sur.
S.D. 1,500 ft.
E. M. Thomason's No. 1 T. P. Shivers, 1,500 ft. from W. and 600 ft. N. of 69-ac. tract, W. R. Bowen Sur., 2 miles S. of Corsicana.
S.D. 1,287 ft.

Reins County

Allen & McClung's No. 1 Giles, T. Cunningham Sur., Abst. 143, 330 ft. from W line and 200 ft. from N line of 105-ac. Giles tract, 5 mi. SW of Emory.
Derrick.
Allen & McClung's No. 1 Ida Bullard N. Brantely Sur., 1,300 ft. from W line and 200 ft. from N line of 25-ac. tract, 2 mi. SW of Emory.
Derrick.
Allen & McClung & Collard's No. 1 S. P. Cain, 1,350 ft. N and 1,550 ft. W line of J. Harges Sur., 1 mile NW of Emory.
Location.

Red River County

Abercrombie & Harrison's No. 1 Southern Pine Lumber Co., 1,148 ft. from S and 1,356 ft. from E, Joshia Davidson Sur., 12 miles NW of Clarksville.
Location.
Don F. Cleary's No. 1 C. S. Mowery, 150 ft. from S and 3,200 ft. W of most easterly E line of J. Bowerman Sur., 10 miles N of Clarksville.
Cored oil sand 1,130-50 ft.; 400 ft. fluid in hole, some oil; to bail out fluid; T.D. 1,144 ft.
Joe Dinger et al's No. 2 Morris, John Guest Sur., approx. 175 ft. NW of No. 1 Morris, 1 mile S Detroit.
S.D. 640 ft.
B. H. Chew et al's No. 1 J. F. Brooks, 900 ft. N and 600 ft. of W line of 320-ac. tract, B. Gooch Sur., ¼ mile S of Bagwell.
Derrick.
Joiner's No. 1 D. Rust, C. C. Wilborn Sur., 334 ft. N and 254 ft. W of most southerly SE cor. of Sur., just south of Avery.
Derrick.

Rockwall County

Dodd et al's No. 1 M. F. Lofland, 2,250 ft. from N and 3,250 ft. from E line of 392-ac. tract, W. H. Beird Sur., 2½ miles SE of Rockwall.
S.D. 192 ft.

Rusk County

Agey Drlg. Co.'s No. 1 John McWilliams Est., 330 ft. out of NW cor. of 240-ac. tract in J. C. De Lavina Sur.
T.D. 3,672 ft.; top sand 3,549 ft.; top Georgetown 3,624 ft.
J. W. Shipman et al's No. 1 Citizens Natl Bank, NE cor. of 125-ac. tract, J. J. T'Barbo Sur., 4 miles NE of Henderson
Elev. 432 ft.; S.D. 2,460 ft.

Titus County

S. Retondi's No. 1 Lillianstun, 1,200 ft. E from NW cor. of J. Bodt Sur. and 338 ft. N. but in W. H. Crawford Sur., 5 miles NE of Talco.
Elev. 391 ft.; derrick.

Upshur County

J. K. Wadley et al No. 1 M. A. Hill, 330 ft. N and W of 77-ac. tract in J. M. Dunn Sur., N of Jamestown.
Drlg. 110 ft.

Van Zandt County

Byers et al No. 1 Mrs. E. S. Williams, 330 ft. out of SE cor. of 92-ac. tract in D. Smith Sur., 1½ miles NW Wills Point.
Austin chalk 2,670-3,070 ft.; drlg. 3,215 ft.
J. H. Gilliam et al's No. 1 E. S. Martin, 185 ft. most southerly SE line, and 268 ft. from most easterly SW line of tract, James Hamilton Sur., 3 miles NE of Wills Point.
Location.

Wood County

Westgate Oil Co.'s No. 1 West Lake Hunting and Fishing Club, 660 ft. from S and E of 428.6-ac. tract, M. Rentarsris Sur., 14 miles E of Mineola.
Elev. 495 ft.; Austin chalk 4,755-5,092 ft.; drlg. 5,110 ft.

WEST TEXAS WILDCATS

Week Ending November 30

Brewster County

P. C. Dodson's No. 1 Texas American Syndicate, 660 ft. from N and E. Sec. 66, Blk. 19, G.H.&S.A. Sur.
T.D. 1,715 ft.; R.U. on new location.

Joiner et al's No. 1 McIntyre, 353 ft. from S, 2,390 ft. from E of Sec. 21, Blk. 352, W. M. Mitchell Sur.
S.D. 2,150 ft.
King & Franklin's No. 1 Gage Est., C Sec. 138, Blk. 32, G.H.&S.A. Sur.
Elev. 4,244 ft.; S.D. 1,608 ft.
G. H. Storey's No. 1 Wilson, 1,980 ft. from N and E lines of Sec. 3, Blk. 213, T.&St.L. Sur.
Elev. 3,609 ft.; S.D. 1,875 ft.

Coke County

Haggerty et al's No. 1 Gaston, 340 ft. from S and 664 ft. from W, Sec. 11, Jos. Young Sur.
Drlg. plug 3,350 ft.

Concho County

Maverick Oil Co.'s No. 1 Jim Rice, 330 ft. from S and W lines of NW¼ of Sec. 18, S.N. Ry. Sur.
S.D. 150 ft.
John W. Westbrook's No. 1 Ledbetter 1,950 ft. from N and 3,300 ft. from E lines of Sec. 2, Sur. No. 1,673.
S.D. 875 ft.

Crane County

Big Basin Pet. Corp.'s No. 1 Cowdin, 330 ft. from N and 1,650 ft. from E, sec. 77, Blk. X.
T.D. 589 ft.; set csg.
Gulf Prod. Co.'s No. 1 Waddell, C NW NW Sec. 4, Blk. B-27, P.S.L. Sur.
Top Simpson 6,060 ft.; T.D. 6,450 ft.; to P.B. to shut off wtr.; flowing sulfur wtr.
Moore Bros. No. 1 Barnsley, 1,320 ft. from S and W, Sec. 43, Blk. 32, P.S.L. Sur.
Location.
Wahlenmaier Pet. Corp.'s No. 2 Kloh, 330 ft. from S and W, Sec. 33, Blk. 44, Twp. 3s, T.&P. Sur.
T.D. 2,795 ft.

Crockett County

J. G. Harris' No. 1 Parker, 438 ft. from S and 7,200 ft. from E, sec. 83, Blk. 1, I.&G.N. Sur.
Drlg. 350 ft.
Leslie-Hiller et al's No. 1 Todd, 1,200 ft. N and 330 ft. E. Sec. 36, Blk. WX, G.C.&S.F. Sur.
S.D. 821 ft.
John L. Moore's No. 1 A. C. Hoover, 330 ft. from S and E lines of Sec. 4, Blk. FF B.&B. Sur.
Spudded and shut down.

Culberson County

Anderson-Prichard Oil Corp., Magnolia Pet. Co. et al's No. 1 Bordera, 1,255 ft. N and 2,305 ft. from W, Sec. 34, Blk. 69, P.S.L. Sur.
T.D. 2,914 ft.; set csg.

Dawson County

Adams & Turner's No. 1 John Robinson, 1,320 ft. from N line, 1,320 ft. from W line of Sec. 46, Blk. M, E.L.R.R. Sur.
S.D. 4,860 ft.

Ector County

W. P. Dunning, Jr., et al's No. 1 Mrs. Clarence Scharbauer, 440 ft. from S and 2,200 ft. from W lines of Sec. 32, Blk 44, Twp. 1s, T.&P. Sur.
Drlg. 3,636 ft.
Gulf Prod. Co.'s No. 2 Goldsmith, 440 ft. from S and E, Sec. 22, Blk. 44, Twp. 1s, T.&P. Sur.
T.D. 4,072 ft.; increase gas 2,963-66 ft.
Gulf Prod. Co.'s No. 3 Goldsmith, 2,300 ft. from N and 440 ft. from E lines of Sec. 15, Blk. 44, Twp. 1s, T.&P. Sur.
T.D. 3,967 ft.; fishing; gauged 22,392,000 ft. of gas.
Phillips Pet. Co. No. 2 Cowden, 440 ft. from N and 1,320 ft. from W, sec. 26, blk. 44, Twp. 1s, T.&P. Sur.
Location.
Sun and Atlantic's No. 1 O. B. Holt, 1,980 ft. from S and 660 ft. from W lines of Sec. 4, Blk. 43, Twp. 1n, T.&P. Sur.
S.D. 4,090 ft.; made 485 bbls. in 10 hrs.
York & Harper's No. 1 H. C. Foster, 660 ft. S and E Sec. 13-43-2s, T.&P. Sur.
S.D. 4,010-20 ft.; S.D. 4,104 ft. to erect storage as hole filled.

Edwards County

O. L. Williams' No. 1 Holman, 300 ft. from N and E, Sec. 145, C.C.S.D.&R.G.N.G. Sur.
Drlg. 1,350 ft.

Fisher County

L. A. Daniels et al's No. 1 J. J. Nickless, 1,700 ft. S and 2,070 ft. W of SW cor. of Sec. 69, H.T.&B. Sur., but in Sub. 1, G. W. Lawrence Sur., 6 miles E of Roby.
S.D. 685 ft.
Tide Water's No. 2 Howard, 1,620 ft. from N and 1,550 ft. from E lines of Sec. 180, Blk. 2, H.&T.C. Sur.
Drlg. 3,325 ft.; H.P.W. 3,275-85 ft.
Tide Water Oil Co.'s No. 1 Newman, 1,768 ft. from N and 1,054 ft. from W of NE¼ Sec. 2½, John Rodman Sur., 4 miles SE of Roby.
Top Noodle Creek lime 3,230 ft.; T.D. 3,598 ft.; S.D. to set csg.

Gaines County

Stogner's No. 1 Kirk, SW¼ Sec. 28, Blk. A-21, 5 miles S of Seminole.
Location.
Wahlenmaier Pet. Co. et al's No. 1 E. H. Jones, 660 ft. S and W, Sec. 414, Blk. G, C.C.S.D.&R.G.N.G. Sur., 22 miles NW of Seminole.
Drlg. 2,157 ft.
W. T. Walsh et al's No. 1 Averitt, 330 ft. N and E lines Sec. 228, Blk. G, W.T.R.R. Sur.
Elev. 3,222 ft.; gas show 2,785 ft.; increase 2,795 ft.; T.D. 3,090 ft.; drlg. by tools 3,000 ft.

Garza County

Grisham & Hunter No. 1 Sullivan, 330 ft. from S and 2,310 ft. from E, sec. 3, K. Aycock Sur.
Material.

Glasscock County

John I. Moore et al's No. 1 J. S. McDowell, 1,980 ft. from N line and 660 ft. from E line of Sec. 22, Blk. 34, Twp. 2s, T.&P. Sur.
Topped lime 9,471 ft.; show oil and gas 9,484-9,520 ft.; increase oil 9,594-9,600 ft. and 9,633-55 ft.; T.D. 10,115 ft.; made 150-bbl. flow when opened on test.

Howard County

T. P. Coal & Oil Co.'s No. 1 Douthit, 400 ft. from S and 2,310 ft. from W, Sec. 116, Blk. 29, W.&N.W. Sur.
Drlg. 2,500 ft.

Hudspeth County

Hayman-Krupp Oil & Land Co. No. 1 Saxton, 1,464 ft. from S and 291 ft from E, sec. 34, Blk. 74, Twp. 6, T.&P. Sur.
Location.

Jeff Davis County

C. E. Joiner's No. 1 Jones & Coffield, 710 ft. from N and 1,322 ft. from E, Sec. 8, Blk. 3, H.&T.C. Sur.
S.D. 1,610 ft.

Jones County

Brown Eagle Oil Co. et al's No. 1 B. Fields, 4,166 ft. from N and 1,414 ft. from E lines of S. Andrews Sur.
Drlg. 1,347 ft.
Campbell et al's No. 1 Rowell, in E half of W half, Sec. 6, T.&P. Sur.
S.D. 2,529 ft.
Conway & Gholson's No. 1 Cauthen, 150 ft from S and W lines of Sec. 24, G. A. Williams Sur.
T.D. 1,775 ft.; U.R. csg.
J. N. DeMont No. 1 L. G. Roberts, 150 ft. from N and 1,287 ft. from E lines, John Casner Sur.
Location.
Jamison et al No. 1 Triplett, 3,284 ft. from N and 200 ft. from E, Jasper Gocher Sur. No. 199.
Material.
J. N. Cooper's No. 1 W. E. Robinson, 660 ft. from S and E, Blk. 7, L. Matthews Sur.
Location.
R. L. Crawford et al's No. 2 Waltzer, 200 ft. from S and 532 ft. from W, Sec. 1, Blk. 2, T.&N.O. Sur.
T.D. 1,944 ft.; drilling in.
Farris & Fikes No. 3 Jennings, 330 ft. from S and W of NE of SE¼, Sec. 207, B.B.&C. Sur.
Machine rigged up.
Farris & Fikes' No. 1-A Jennings, 1,980 ft. from S and 150 ft. from W, Sec. 1, I.&G.N. Sur.
Machine.
Golden Pet. Co. and Cochran's No. 1 J. J. Steele, 150 ft. from N and W, Sub. 7, R. Grimes Sur. No. 8.
T.D. 1,945 ft.; ran csg.
Herring & Hodges' No. 1 Mrs. C. D. Cowsart, 200 ft. from N and W, Sec. 42, Orphan Asylum Lands.
Spudded and S.D.
Tom D. Medders et al's No. 1 J. E. Manley, 1,170 ft. from S and E lines of Sec. 35, Blk. 14, T.&P. Sur.
T.D. 1,570 ft.; swedging pipe.
Peckham & Danciger's No. 1 City of Stamford, 1,316 ft. from N and 174 ft. from E, sec. 204, B.B.B.&C. Sur.
T.D. 1,530 ft.; set csg.
Reliance Oil Co.'s No. 1 Crow, 660 ft. from S and 1,320 ft. from E lines of Sec. 9, D.&D.A. Sur.
Drlg. 1,658 ft.
Sandy Ridge Oil Co.'s No. 3 Jones, 1,520 ft from N and 660 ft. from W, Sec. 5, Blk 15, T.&P. Sur.
Drlg. 1,627 ft.
Sanders et al's No. 1 J. A. Martin, 330 ft. from S and E, Sec. 205, B.B.B.&C. Sur.
S.D. 990 ft.
Shaheen et al's No. 1 J. J. Steele, 660 ft. from S and 1,980 ft. from E, Sec. 11, Blk. 15, T.&P. Sur.
S.D. 190 ft.
Shaheen et al No. 1 T. B. McCoy, 660 ft. from N and 1,320 ft. from E of most easterly SE cor. sec. 1, Blk. 16, T.&P. Sur.
Machine.
Sheldon Bros.' No. 1 J. Dillard, 1,000 ft. from S and 200 ft. from E, sec. 2, Blk. 17, T.&P. Sur.
Location.

Kimble County

Forrest Dev. Co.'s No. 1 Stopp, 660 ft. from N and 1,866 ft. from W, Sec. 682, Blk. N, G.H.&S.A. Sur., 18 miles SE of Junction.
Drlg. 2,075 ft.

Loving County

D. C. Evans' No. 1 W. D. Johnson, 2,310 ft. from N and 1,650 ft. from W, Sec. 13, Blk. 57, Twp. 1, T.&P. Sur.
S.D. 2,618 ft.

Martin County

Harris & Meyers' No. 1 L. T. Brook.
S.D. 135 ft.
William Hix' No. 1 O. B. Holt, C of Labor 12, League 319, Garza County School Lands.
Spudded and shut down.
Wright & Scott's No. 1 Flannigan, 330 ft. N and E, Sec. 22, Blk. 37, Twp. 1s, T.&P. Sur.
S.D. 109 ft. for casing.

McCulloch County

Mark Hill's No. 1 Moore Bros., 934 ft. from S and 150 ft. from E lines of Sec. 2, State School Land Sur.
T.D. 690 ft.; P.B. to 605 ft.
Poulter et al's No. 2 Wyres, 50 ft. from S and 160 ft. from W, P. W. Rocins Sur.
S.D. 1,543 ft.

Menard County

Wilcox O. & G. Co. No. 1 Merchenson, 330 ft. from S and W, Sec. 158, E.L.R.R. Sur., Abst. 1,340, 8 miles S of Menard.
Rig.

Mitchell County

Lockhart et al's No. 1 W. C. Berry, 330 ft. from N and 2,310 ft. from E, Sec. 80, Blk. 97, H.&T.C. Sur.
S.D. 1,802 ft.; show oil 1,716-36 ft.; acidized and testing.
Sawtell & Grueber's No. 1 Morrison.
T.D. 2,810 ft.; P.B. to 2,800 ft.; pumping 10 bbls. oil and 10 bbls. wtr. per day.
Southern Union Prod. Co.'s No. 1 Castin, 330 ft. from S and E, Sec. 11, Blk. 28, Is. T.&P. Sur.
Spudded and S.D.

Nolan County

Harris et al's No. 1 Georgia Institute of Technology, 330 ft. from S and 1,320 ft. from W, Sec. 89, Blk. 24, T.&P. Sur.
S.D. 200 ft.

Pecos County

Ajax Drlg. Co.'s No. 1 University, 2,310 ft. from S and W, Sec. 13, Blk. 18.
T.D. 1,158 ft.; loading hole.
Cardinal Oil Co. No. 1-43 White & Baker, 330 ft. from N and E, sec. 43, Blk. Z, T.C.R.R. Sur.
Pits.
C. R. Richards' No. 4 Courtney, 920 ft. from N and W, Sec. 78, Blk. OW, 360 ft. S of No. 2.
Elev. 2,967 ft.; fishing 1,100 ft.
Tex-Mex Pet. Co.'s No. 1 Phillips-Brandenburg, 330 ft. from S and E of N half Sec. 42, Blk. 8, H.&G.N. Sur.
T.D. 1,605 ft.; fishing.
Trans-Pecos Oil Co.'s No. 1 F. W. Popham, 1,650 ft. from S and E, Sec. 235, Blk. 11, G.H.&S.A. Sur.
To spud.
Trans-Tex. Oil Co.'s No. 1 Caldwell, 330 ft. from E line and 330 ft. from S line of Sec. 27, Blk. 40, Twp. 9, T.&P. Sur.
S.O. 3,905-4,000 ft.; 1 bailer oil in 48 hrs.; fishing 4,960 ft.

Reagan County

Bahan & Rhodes' No. 1 Reed, 1,320 ft. from N and W, Sec. 31, Blk. 35, Twp. 5s, T.&P. Sur.
Drlg. 3,312 ft.
Dobbs Oil Co.'s No. 2 Friend, 660 ft. from W and 1,375 ft. from S, Sec. 3, Wm. Allen Sur.
Location.
Skelly Oil Co.'s No. 6 Grayson, 1,320 ft. from N and 440 ft. from W, Sec. 33, Blk. 8, University Lands.
S.D. 640 ft.

Reeves County

Dunigan's No. 1 Davis, 330 ft. from N and W, Sec. 7, Blk. 58, P.S.L. Sur.
Location.
Grisham-Hunter Corp.'s No. 1 T. P. Land Trust, 1,320 ft. from S and W lines, Sec. 27, Blk. 57, Twp. 2, T.&P. Sur.
Drlg. 2,900 ft.
Washington Oil Co.'s No. 1 J. M. Radford Grocery Co., 2,640 ft. from S and 346 ft. from E, Sec. 39, Blk. 56, P.S.L. Sur.
Elev. 3,169 ft.; T.D. 502 ft.

Runnels County

John Caster et al's No. 1 Giesecke, 330 ft. from N and 713 ft. from E, Sub. 3, Blk. 136, J. Hughes Sur. 227.
S.D. 502 ft.

Schleicher County

John M. Cooper et al's No. 1 Bert Page, 1,290 ft. from N line, 1,470 ft. from W line of Sec. 40, Blk. Is. G.H.&S.A. Sur.
T.D. 6,257 ft.; P.B. to 5,555 ft.; acidized and made estimated 6,000,000 ft. gas; to P.B. further.
W. C. Proctor et al's No. 1 Judkins & Spencer, C SW ¼ Sec. 4, Blk. V-28.
S.D. 2,205 ft.; moving in heavy rotary.

Scurry County

Coffield & Guthrie's No. 1 Wade, 990 ft. from N and 330 ft. from W, Sec. 115, Blk. 97, H.&T.C. Sur.
Drlg. 3,051 ft.

Sutton County

Fleetborn Oil Corp.'s No. 1 G. S. Allison, 660 ft. from S and W, Sec. 49, Blk A, G.W.T.&P. Sur.
Saturated sand 3,383-93 ft.; T.D. 3,393 ft.; D.S. test 3,347-66 ft. showed 5 gals. heavy oil and small amt. drlg. fluid.

Taylor County

Hightower O. & R. Co. No. 1 E. E. Sadler, 250 ft. from N and 4,400 ft. from W, in C. Cole Sur., 2 miles W of Wiley.
Location.

Tom Green County

Mays Oil Co.'s No. 1 I. Funk, 1,980 ft. from S and 660 ft. from W, Sec. 28, Blk 5, H.&T.C. Sur.
Drlg. 1,235 ft.
Twin Oil Co.'s No. 1 W. E. Green, 1,650 ft. from N and 1,400 ft. from W, L. P. Moore Sur. 160½.
S.D. 315 ft.

Upton County

I. G. McKenzie's No. 1 Taylor, 1,650 ft. from S and 330 ft. from E lines of Sec. 32, Blk. B-3, G.H.&S.F. Sur.
T.D. 630 ft.
A. E. Lynch et al's No. 1 Shark, 350 ft.

from N and E, Sec. 25, Blk. 2, M.K.&T. Sur., 2 mi. E and 8 mi. N of McCamey. S.D. 1,010 ft. for csg.

Ward County

Abell Brothers' No. 1 Lancaster Estate. 294 ft. N 20 degrees and 15 minutes W of NE cor. Sec. 61, Blk. 8, H.&G.N Sur. in Pecos County, 5½ miles down Pecos River from NW cor. of Pecos and E cor. of Reeves County. Spudded and shut down.

Alexander's No. 1 Richter. 1,650 ft. from NW, 1,170 ft. from NE line of Sec. 27 Blk. 84, H.&T.C. Sur. S.D. 2,643 ft.; est. 75 to 100 bbls. oil per day.

C. Cochran's No. 1 K. Greene, 990 ft. from NW and 2,980 ft. from SW, Sec. 29, Blk B-29, P.S.L. Sur. Drlg. 1,200 ft.

Dobbs Oil Co. No. 1 A. F. Bray. Drlg. 800 ft.

Stanolind O. & G. Co.'s No. 1 W. H. Martin, 1,650 ft. SW and 330 ft. from SE Sec. 40, Blk. 34, H.&T.C. Sur. T.D. 2,987 ft.; to P.B.

Wahlenmaier et al's No. 1 Potts, 990 ft. from SW and 330 ft. from SE, Sec. 38, Blk. B-29. T.D. 849 ft.; pulled csg.

Winkler County

Atlantic O. P. Co. No. 1 Lovett, 2,260 ft. from W and 2,200 ft. from S, Sec. 36, Blk. 26, P.S.L. Sur. Drlg. 315 ft.

Crafton Oil Co.'s No. 2 Pure-Walton, 2,200 ft. N and E, Sec. 1, Blk. 3-B. Material.

Crafton Oil Co.'s No. 1 Pure-Walton, 440 ft. E and 1,320 ft. S, Sec. 2, Blk. 3-B, P.S.L. Sur. Drlg. 2,952 ft.

Emperor Oil Co.'s No. 1 Continental-Holley, 330 ft. from S and 2,310 ft. from W, Sec. 12, Blk. B-12. S.D. 1,560 ft.

Gulf Prod. Co.'s No. 3 Keystone Cattle Co., 330 ft. from N and W of NE¼ Sec. 11, Blk. B-3. T.D. 3,765 ft.; P.B. 3,320 ft.; cleaning out.

Gulf Prod. Co.'s No. 4 Keystone Cattle Co., 330 ft. from N and E, Sec. 20, Blk B-3. T.D. 3,756 ft.; P.B. 3,375 ft.; S.D.

Gulf Prod. Co.'s No. 8 Keystone Cattle Co., 330 ft. from S and W of Sec. 13 Blk. B-3. Elev. 2,964 ft.; T.D. 4,463 ft.; 2,300 ft. fluid in hole.

Gulf Prod. Co.'s No. 9 Keystone Cattle Co., 330 ft. from S and W of Sec. 18 Blk. B-2. Elev. 3,046 ft.; S.D. 4,136 ft.

Gulf Prod. Co. No. 10 Keystone, 440 ft. from E and 2,200 ft. from S, Sec. 19, Blk. B-3. Derrick.

K-D Oil Co.'s No. 1 P. Mitchell, 1,650 ft. from N and 2,310 ft. from E, Sec. 33 Blk. B-10, P.S.L. Sur. Cable tools rigged up.

Magnolia Pet. Co. No. 2 Sealey, 330 ft. from S and W, Sec. 94, Blk. A. R.U. cable tools.

Mascho Oil Co.'s No. 1 Evans, 1,320 ft. from N and W, Sec. 8, Blk. 56. S.D. 80 ft.

Mascho Oil Co.'s No. 1 Evans, 1,170 ft. from N and 1,320 ft. from W, Sec. 46, Blk. 73, P.S.L. Sur. S.D. 217 ft.

Richardson's No. 1 B. F. Jenkins, 440 ft from S and E, Sec. 13, Blk. 77, P.S.L. T.D. 3,498 ft.; C.O. and flowing.

Sioux Oil Co.'s No. 1 Lowett, 330 ft. from N and E, Sec. 26, Blk. 26, P.S.L. Sur. T.D. 3,130 ft.; P.B. 3,091 ft.; 2 bbls. oil and 1,840,000 ft. gas per day.

Sun Oil Co.'s No. 1 Crow, 440 ft. from S and W, Sec. 22, Blk. B-5. T.D. 3,578 ft.; P.B. 3,400 ft. to test upper shows.

Sun Oil Co.'s No. 1 Walton, 2,200 ft. from S and 440 ft. from E, Sec. 8, Blk. B-3. T.D. 3,454 ft.; P.B. 3,400 ft.; flowing by small heads as fishing.

Westbrook's No. 1 Brown & Altman, 2,310 ft. from N and E, Sec. 5, Blk. B-5. T.D. 3,256 ft.; testing.

Thurman et al's No. 1 Seth Campbell 18-B-3, 330 ft. from S and 1,650 ft. from W lines of Sec. 18, Blk. B-3, P.S.L. Sur. T.D. 3,303 ft.; flowed 75 bbls. oil in 8 hrs. then swabbed 75 bbls. in 6 hrs.; perforated csg. 2,950-3,294 ft.; U.R. csg.

Wahlenmaier et al's No. 1 Walton, 990 ft. from S and 330 ft. from E, Sec. 3, Blk. 26. Drlg. 1,412 ft.

Wilgo Oil Corp.'s No. 1 Campbell, 900 ft. from N and 300 ft. from E Sec. 2, Blk. 5, P.S.L. Sur., 3 miles E of Kermit. Elev. 2,884 ft.; T.D. 4,639 ft.; P.B 3,800 ft.; S.D.

Yoakum County

C. J. Davidson et al's No. 1 Bennett, 1,320 ft. from N and E, Sec. 673, John H. Gibson Sur. Elev. 3,557 ft.; T.D. 5,090 ft.; 4,000 ft. fluid in hole, mostly oil; set 6⅝-in. csg. at 4,651 ft.

Texas Panhandle Wildcats

Week Ending November 30

Carson County

Danube Oil Co.'s No. 1 Bryan, 308 ft. from N and 409 ft. from E of N½ of NE¼ Sec. 107, Blk. 4, I.&G.N. Sur. T.P. 3,095 ft.; T.D. 3,167 ft.; P.B. to 3,150 ft.; acidized; made 22 bbls. per day.

Robert Watchorn's No. 1 Eller, 330 ft. from S and E lines of W½ and SE¼ of Sec. 9, Blk. 7, H.&G.N. Sur. T.D. 3,801 ft.; drlg. 2,346 ft.

Childress County

Alma Oil Co.'s No. 1 Lowe. 660 ft. from N and W of SW¼ Sec. 417, Blk. H, W.&N.W. Sur., S of Kirkland. S.D. 3,234 ft.; P.B. 5,682 ft.; perforated csg.; 34 holes from 5,670-80 ft.; pumping 20 bbls. water per hour; showing some oil.

K. T. Wilson et al's No. 1 Scrugga, 1,320 ft. from S and W lines of SW¼ of Sec. 495, Blk. H, W.&N.W. Sur. Water well drilled.

Collingsworth County

Tom Hunter et al's No. 1 Tinsley, 660 ft. from S and 1,020 ft. from E of NE¼ Sec. 8, Blk. 13, H.&G.N. Sur. S.D. 350 ft.

Smith Bros.' No. 1 Pierce, C NE¼ Sec. 107, Blk. 21, H.&G.N. Sur. S.D. 2,830 ft.; P.B. to 2,655 ft.; testing water shutoff.

Gray County

Blackwell O. & G. Co. et al's No. 1 Furneaux, 330 ft. from S and E lines of SW¼ of Sec. 110, Blk. B-2, H.&G.N. Sur. S.D. 3,264 ft.; to shoot.

Christie & Hickman No. 1 Gethings, 330 ft. from S and 990 ft. from W of SE¼ Sec. 48, Blk. A-9, H.&G.N. Sur. Rigged up.

Drilling Exploration Co.'s No. 1 Lapold, 330 ft. S and W, Sec. 141, Blk. 3, I.& G.N. Sur. Material.

Harry Foster's No. 1 Johnson, 330 ft. from N and E lines of Sec. 21, L. L. Erwin Sur. Cleaning out 700 ft.

Plains Holding Co.'s No. 1 Morse-Gulf, 330 ft. S and W, Sec. 67, Blk. 25, H.&G.N. Sur. Derrick.

Saulsbury Oil Co.'s No. 1 Carpenter, C NE¼ Sec. 37, Blk. 25, H.&G.N. Sur. S.D. 2,925 ft.

Taylor Oil Co.'s No. 2 W. H. Taylor, 1,320 ft. from N and W lines of NW¼ of Sec. 79, Blk. B-2, H.&G.N. Sur. Drlg. 2,635 ft.

Hall County

Davis et al's No. 1 Knorpp, 330 ft. S and W, Sec. 7, Blk. A, A.B.&M. Sur. S.D. 530 ft.

Phillips Pet. Co.'s No. 1 Hughes, C N½ Sec. 4, Blk. H, H. Stephens Sur. T.D. 2,793 ft.; ran csg.

Hartley County

O V. Beck et al's No. 1-A Matador ranch, 350 ft. from N and 385 ft. from W of most northerly NW cor. Sec. 20, Blk. 22, C.S.S. Sur. S.D. 3,500 ft.

Hutchinson County

Burnett's No. 1 Ingerton, 770 ft. from S and 1,320 ft. from W, Sec. 327, Blk. Z, E.L.R.R. Sur. T.D. 2,351 ft.; standardizing.

Power Pet. Co.'s No. 1 Hodges, 660 ft. S and E of most southerly 80 acres of S 160 acres of SE 200 acres, Sec. 16, Blk. M-35, T.C. Sur. Rig.

Stinnett Oil Co.'s No. 1 Starnes, 330 ft. from N and 275 ft. from W of E½ of NW¼ Sec. 22, Blk. M-22, T.C. Ry. Sur. T.D. 3,121 ft.; shot; swabbed 220 bbls. in 16 hrs.

H. J. Wasson's No. 1 Halle, 330 ft. from S and W, NW 120 ac., Sec. 5, Blk. M-21, T.C. Sur. Drlg. 2,160 ft.

Moore County

Anderson & Kerr's No. 1 Morton, 1,320 ft. from N and 2,640 ft. from E, Sec. 205, Blk. 3-T, T.&N.O. Sur. Derrick.

Anderson & Kerr's No. 1 Wilson, 660 ft. from S and E, Sec. 209, Blk. 3-T, T.& N.O. Sur. T.D. 2,764 ft.; standardized.

Anderson & Kerr's No. 1 Wilbur, 660 ft. from S and E lines of NW¼ of Sec. 226, Blk. 3-J, T.&N.O. Sur. S.D. 2,702 ft.; standardized.

Shamrock O. & G. Co. No. 1 L. L. Hill, 1,320 ft. from N and 330 ft. from E of NW¼ Sec. 359, Blk. 44, H.&T.C. Sur. Cellar.

Wheeler County

Allender & Heare's No. 1 Harvey, 330 ft. from S and W lines of E½ of SW¼ of Sec. 67, Blk. 13, H.&G.N. Sur. S.D. 650 ft.

Barnes & Green No. 1 George, 330 ft. from N and W of W½ of SW¼ Sec. 76, Blk. 17, H.&G.N. Sur. Location.

Ochiltree County

James R. Macon's No. 1 W. R. Norris, 330 ft. S and 990 ft. E, Sec. 212, Blk. 43, H.&T.C. Sur. Shut down.

Allen F. Hickey, sales manager of the Naph-Sol Refining Co., Muskegon, Mich., has returned from a trip to Los Angeles, Calif.

California Oil Field Operations for October, 1935

According to figures collected by the American Petroleum Institute, the total production of crude oil in California for October amounted to 20,152,039 bbls.

Total stocks of crude and all products in Pacific Coast territory increased during the month 1,670,617 bbls. The total stocks at the end of the month were 122,886,888 bbls. The total stock decrease for 1935, up to October 31, was 3,331,429 bbls.

CRUDE PETROLEUM PRODUCTION

(Figures of Production and Stocks are in barrels of 42 gals.)

	Total production, October	Daily average		
		Oct., 1935	Sept., 1935	Oct., 1934
Group No. 1:				
Belridge—North	303,763	9,799	7,823	4,859
Belridge—South	75,509	2,436	2,410	2,013
Coalinga	648,781	20,929	20,491	18,757
Edison	131,021	4,226	3,466	1,056
Elk Hills	302,349	9,753	9,510	7,959
Fruitvale	195,406	6,303	6,201	3,442
Kern River	449,790	14,509	14,970	10,680
Kettleman Middle Dome	.....	.....	2	567
Kettleman North Dome	3,103,848	100,124	88,066	58,732
Lost Hills	151,241	4,879	4,828	4,544
McKittrick	129,592	4,180	4,174	2,946
Midway-Sunset	1,824,862	58,867	57,667	53,903
Mountain View	1,178,070	38,002	41,040	9,805
Mount Poso	550,952	17,772	18,390	10,099
Round Mountain	250,952	8,095	8,012	4,426
Wheeler Ridge	12,701	410	415	419
Group No. 2:				
Capitan	59,275	1,912	1,796	816
Elwood	432,819	13,962	13,316	9,514
Rincon	67,928	2,191	2,185	1,362
San Miguelito	28,837	930	765	612
Santa Barbara	73,929	2,385	2,577	2,553
Santa Maria	134,940	4,353	4,625	4,772
Summerland	1,024	33	30	57
Ventura Avenue	1,087,746	35,089	33,753	22,943
Ventura-Newhall	128,346	4,140	4,049	4,008
Watsonville	1,860	60	60	60
Group No. 3:				
Brea-Olinda	301,932	9,740	9,726	10,177
Coyote—East	79,421	2,562	2,742	2,611
Coyote—West	320,857	10,350	9,735	8,465
Dominguez	656,166	21,167	22,119	17,089
Huntington Beach	1,340,282	43,235	42,769	39,275
Inglewood	436,880	14,093	14,277	9,183
Lawndale	8,770	283	243	137
Long Beach	2,406,789	77,638	81,160	60,006
Los Angeles-Salt Lake	23,623	762	748	775
Montebello	198,962	6,418	6,502	5,771
Playa Del Rey	521,630	16,827	17,610	7,360
Potrero	9,739	314	311	413
Richfield	232,016	7,484	7,743	8,054
Rosecrans	78,608	2,536	2,571	2,943
Santa Fe Springs	1,698,408	54,787	54,793	36,477
Seal Beach	267,888	8,642	8,454	8,493
Torrance	212,681	6,861	7,099	7,179
Whittier	31,846	1,027	1,113	1,039
Total October	20,152,039	650,065	640,336	466,251
Total September	19,210,077	640,336		
Increase	941,962	9,729		

OIL FIELD DEVELOPMENT

	New rigs up	Active drilling	Producers completed	Daily initial output	Active producing	Abandoned wells: Drillers	Abandoned wells: Producers
Group No. 1:							
Belridge—North	..	6	1	4,425	28	..	..
Belridge—South	..	...	...	.....	163	..	..
Coalinga	..	4	...	.....	971	..	2
Edison	5	7	4	2,077	48	..	..
Elk Hills	...	...	...	.....	167	..	..
Fruitvale	1	3	3	495	79	..	..
Kern River	8	4	7	1,730	1,515	..	..
Kettleman Middle Dome	..	2	...	.....	...	..	..
Kettleman North Dome	7	21	4	11,415	110	..	..
Lost Hills	..	1	...	.....	336	..	..
McKittrick	1	2	...	.....	217	..	..
Midway-Sunset	6	6	2	66	2,564	..	2
Mountain View	8	21	5	12,999	99	..	1
Mount Poso	4	8	5	2,370	216	1	..
Round Mountain	..	...	1	1,418	73	..	..
Wheeler Ridge	..	1	...	.....	35	..	..
Group No. 2:							
Capitan	..	1	1	241	16	..	..
Elwood	1	2	1	2,860	59	..	..
Rincon	2	2	...	.....	30	..	..
San Miguelito	1	...	...	.....	4	..	..
Santa Barbara	1	1	...	.....	65	1	..
Santa Maria	..	2	1	84	206	..	..
Summerland	..	1	...	.....	19	..	..
Ventura Avenue	..	7	2	277	213	..	..
Ventura-Newhall	1	16	1	214	548	..	2
Watsonville	..	...	...	.....	7	..	..
Group No. 3:							
Brea-Olinda	1	1	1	126	363	..	..
Coyote—East	..	...	...	.....	75	..	..
Coyote—West	2	3	...	.....	60	..	..
Dominguez	1	4	5	1,587	92	..	..
Huntington Beach	3	5	2	114	498	..	..
Inglewood	1	2	...	.....	216	..	..
Lawndale	..	2	...	.....	7	..	..
Long Beach	3	38	10	1,382	1,251	9	3
Los Angeles-Salt Lake	..	...	...	.....	123	..	..
Montebello	1	11	1	658	180	..	..
Playa Del Rey	1	6	2	1,082	205	..	..
Potrero	..	...	...	.....	11	..	..
Richfield	..	1	...	.....	247	..	..
Rosecrans	..	...	...	.....	74	..	..
Santa Fe Springs	1	4	4	753	610	..	3
Seal Beach	..	1	1	644	111	..	..
Torrance	..	...	...	.....	496	..	..
Whittier	..	...	...	.....	161	..	..
Miscellaneous drilling	6	38	...	.....	.....	8	..
Group No. 4—Gas fields:							
Buttonwillow	..	...	...	.....	24	..	..
Delano	..	...	1	Gas	.....	1	..
Dudley Ridge	..	1	...	.....	1	..	..
Semi-Tropic	3	5	4	Gas	.....	3	..
Tracy	..	1	1	Gas	1	..	..
Total October	68	241	70	47,017	12,604	23	13
Total September	72	259	62	44,050	12,502	33	29
Increase	*4	*18	8	2,967	102	*10	*16
Average for year 1934	53	196	38	47,553	11,053	21	17
Average for year 1933	30	124	21	22,842	9,199	14	18
Average for year 1932	18	108	15	13,069	8,928	16	14

*Decrease.

PERSONAL

A. HENNEBECK has been appointed superintendent at Hamilton Dome, Wyo., for Argo Oil Company.

LOUIS A. COSTE of the Union Gas Company of Canada, Ltd., staff has been elected president of the Kinsmen Club of Chatham, Ontario.

M. T. RATHVON, general superintendent of the Argo Oil Company, has returned to Casper by way of Denver after starting a new well in Oklahoma.

L. T. KITTINGER, who was recently appointed sales manager of the Shell Eastern Petroleum Products Company, Inc., arrived in New York last week with MRS. KITTINGER from California on the Santa Rosa of the Grace Line.

J. R. DOLES, of Springfield, Mo., superintendent of the Ajax Pipe Line Company, was a Tulsa visitor last week.

ALLAN G. OLIPHANT, president of the Bay Oil Corporation, returned home to Tulsa to spend the Thanksgiving holiday with his family.

C. R. ERB, of the Union Oil Company's petroleum economic department, has returned to his Los Angeles, Calif., office following a pleasure trip to Honolulu with MRS. ERB.

LUTHER CLARK, of Enid, and DAN CAMERON, of Oklahoma City, Carter Oil Company scouts in western Oklahoma, were visitors at headquarters in Tulsa during the past week.

FRANK C. HENDERSON, New York, president of the Henderson Company, natural gasoline manufacturer, is in Hot Springs, Ark., after a business stay of two weeks in Tulsa.

DANIEL HAYS, of Cambridge, Mass., president of the United Corporation of Massachusetts, spent a part of the past week in Oklahoma, looking after the company's oil interests.

JAMES A. MOFFETT, vice president of the Standard Oil Company of California, has sailed for Europe. He was quoted as saying that in his opinion the general oil situation was the best in years.

WILLIAM GEIS, of the Arrowhead Oil Company and interested in several other producing properties in California, and who has been assistant secretary of the Oil Producers Agency of California, has been elected vice president of the agency.

E. B. MARLOW, of the Sinclair Prairie Marketing Company; RALPH STEINMAN, chief scout for Sinclair Prairie Oil Company, and HUGH RUSSELL, with the same company, all of Tulsa, attended the S.M.U.-T.C.U. football game at Fort Worth, Tex., November 30.

L. O. WOOLLEY of Toronto, Ontario, manager in charge of refining for the British-American Oil Company, is in Calgary, Alberta, in connection with the company's interests in the Turner Valley field.

E. B. RENAUD of Denver University, LLOYD A. NELSON of Texas School of Mines, and C. A. HEILAND each spoke at one of the first three of the winter meetings of the Rocky Mountain Association of Petroleum Geologists in Denver.

JIMMIE MAXWELL, who has been scouting the Wichita Falls district for the Continental Oil Company for the past several years, has been transferred to Midland and JOHN W. CRAM of San Angelo has been moved to Wichita Falls to scout that district for the company.

R. P. MOSCRIP, engineer for the Shell Petroleum Corporation in its Tulsa offices, left Monday with his family to motor to Marshalltown, Iowa, to attend the fiftieth wedding anniversary of Mr. Moscrip's parents. He also plans to spend some time visiting at Iowa State College, of which he is a graduate, and will spend several days in Rockford, Ill., planning to return to Tulsa about the middle of the month.

LOLA NELSON has been transferred to Washington, D. C., after the closing of the Denver office of the Petroleum Administrative Board November 27.

JOHN FERGUSON, geologist for the Amerada Petroleum Corporation out of the Tulsa office, passed through Denver on a trip through Colorado and Wyoming.

Do You Remember?

From The Oil and Gas Journal Files

25 YEARS AGO

The movements of oil men are usually from east to west, but Eugene T. Cremin, Tulsa drilling contractor, moves to Greenville, Ill., where he owns oil property and will contract for drilling wells in that busy oil state.

C. G. Tibbins and Mead Withington, of Marietta, Ohio, who recently sold their Shinnston pool properties in West Virginia for $500,000, are visitors in Oklahoma looking for new fields to conquer.

Horace C. Porter and F. K. Ovitz will have the distinction of being the authors of the first paper to be issued by the new United States Bureau of Mines. It is entitled "The Volatile Matter of Coal."

20 YEARS AGO

The usual price of a drilling rig in Oklahoma has been $1,400 but the price of lumber has increased and now the rig costs $1,540, and oil men don't like it.

P. M. Miskell, of Bradford, Pa., has accepted a position with the American Refining Company at Okmulgee, Okla.

Mrs. Henry Argue, wife of a prominent Eastern and Mid-Continent oil operator, dies in Buffalo, N. Y.

Healdton succeeds Cushing as the busiest oil field in Oklahoma. It is a year younger than Cushing.

A dry hole in section 12-25-4 cools the enthusiasm in the recently opened Eldorado field in Butler County, Kansas.

10 YEARS AGO

David F. Connolly, prominent oil man, drops dead while making a speech to a large audience in Tulsa on the closing night of the successful campaign to raise funds to finish St. John's Hospital.

John D. Rockefeller pledges $250,000 for petroleum research to be carried on under the direction of the American Petroleum Institute.

Emil Deen, one of the organizers of the Oklahoma Producing & Refining Company, dies in Paris, France.

The latest addition to the ranks of oildom is the core drill scout. He rides the roads 2,000 to 3,500 miles a month, reporting on the exact locations of core drilling operations, and seeking to effect trades of core logs.

G. R. HOPKINS, with the Bureau of Mines at Washington, D. C., was a business visitor in Texas during the past week.

F. E. WATERFIELD, of Tulsa, chief engineer for the Oklahoma Pipe Line Company, who has been ill for some time, is on the road to recovery.

RAY E. MILLER, sales manager of Hanlon-Buchanan, Inc., natural gasoline, Tulsa, is on a business trip including Houston, Tex., and other Gulf Coast points.

J. M. FLAHERTY, office manager for Shell Petroleum Corporation in the Tulsa headquarters, spent last week in St. Louis, Mo., the company's executive headquarters.

H. E. WALLACE, vice president of the American Naphtha Oil Corporation, has returned to his California headquarters at Bakersfield, following a business trip to New York.

PAUL GRIFFIN, vice president of the Oklahoma Pipe Line Company, has been roaming the forests of McKean County, Pennsylvania, shooting deer. He made his headquarters in Smethport.

CHESTER CASSEL, of the Texas Company, was recently elected president of the Pacific Section of the American Association of Petroleum Geologists, succeeding HAROLD HOOTS of the Union Oil Company.

E. B. HOWARD and IVAN HOWARD, of Tulsa, have returned from an extended tour of the Laredo field in southwestern Texas. They have a good opinion of the area and predict that it will show increased exploration and development work next year.

G. W. VAN FLEET, former supervisor of the Federal Petroleum Agency at Kilgore, Tex., has just returned from Washington, D. C., and announced that he was to succeed JOHN F. DAVIS on the Federal Tender Board. Mr. Davis has been transferred to the Petroleum Administrative Board as attorney.

PARAGRAPHS

CHASE E. SUTTON, of the Pure Oil Company, Houston, Tex., has been appointed chairman of the Interpretations Committee of the American Petroleum Institute's Committee on Standardization of Oil Field Equipment. The following have been appointed members of the committee, which will handle complaints: M. C. HOFFMAN, Stanolind Oil & Gas Company, Tulsa; E. W. MASTERS, Shell Oil Company, Los Angeles, Calif.; BOWMAN THOMAS, Humble Oil & Refining Company, Houston; and B. B. WESCOTT, Gulf Research & Development Corporation, Pittsburgh, Pa. H. D. COLLINS, of the Gypsy Oil Company, Tulsa, has been appointed chairman of the Mid-Continent district subcommittee to succeed L. A. OGDEN, resigned. A. R. WILSON, of the Texas Company, Denver, Colo., has been appointed chairman of the Rocky Mountain district subcommittee to succeed L. J. DALY, resigned.

W. B. SHARP, president of the Mission Manufacturing Company at Houston, is on an extended business trip to New York.

M. STEVENS, of Petrolia, Ontario, left Vancouver, British Columbia, on December 4 for Australia under a three-year drilling contract.

JOSEPH G. HEYCK, scout for Humble Oil & Refining Company at Lake Charles, announced the arrival of a baby boy the past week.

GEORGE R. WOODS, New York manager Regan Forge & Engineering Company, has just returned from Europe, where he called on the oil companies.

F. F. WILKINSON, in the pipe line department of the Continental Oil Company at Ponca City, Okla., was a business visitor to the company's offices in Houston, Tex., the past week.

DAN J. MORAN, president of the Continental Oil Company, returned to the company's offices in Houston, Tex., after spending a few weeks at the company's general offices in Ponca City, Okla.

C. A. JAMES, chief clerk for the Magnolia Petroleum Company at Lake Charles, La., and MRS. JAMES were seriously injured in an automobile wreck the past week on the Beaumont-Houston highway.

R. B. CREAGER, of Brownsville, Tex., and formerly receiver for the Houston Gas & Fuel Company in Houston, Tex., was elected president of the company a few hours after a three-year-old federal receivership of the company was terminated at Houston the past week.

EUGENE HOLMAN, president of the Creole Petroleum Company and also associated with other subsidiary companies of the Standard Oil Company of New Jersey, with headquarters in New York, is spending a vacation in coastal Louisiana accompanied by MRS. HOLMAN.

PHILIPPE DUTEY, managing director of the Henry Hamelle Society, an oil company of Paris, arrived in New York on the Lafayette of the French Line.

PROFESSOR WEILAND, Yale's cycad expert, is with a party of U. S. Geological Survey working around Hot Springs, S. Dak. C. E. SRDMAN and ROLAND K. THIES, geologists, who were with the party, have returned to Denver headquarters.

S. J. SIMONTON, who has been manager of lubricating oil sales in Arkansas for the Standard Oil Company of Louisiana, has been appointed to the sales staff of the company in London, England. His work, starting the first of the year, will be in the South American countries.

MISS ROSE YOUNG, in the Denver office of the U. S. Geological Survey, will spend Christmas with her family in Washington.

W. E. ULLMAN of Chicago and DIXON S. KELLY, FRANK E. RUBEN, G. RHINEGOLD and CHARLES M. HAMILTON of Los Angeles are at Lethbridge, Alberta, to witness the completion of Terminal Oils No. 1 well on the Del Bonita structure.

HERBERT L. PRATT, who recently retired as chairman of the board of the Socony Vacuum Oil Company, Inc., New York, and JOSEPH N. PEW, JR., vice president of the Sun Oil Company, Philadelphia, have been appointed members of a committee of 16 by the Republican National Committee to raise funds for the 1936 campaign.

Many Years With Union

E. W. Hutton, manager of Union Oil Company's lubricants and special products department, has been on the company's sales staff 12 years and for 3 years just previous to his present assignment was manager of lubricating oil sales and also served in the specialty products department, which includes commodities for automotive, household and industrial uses.

E. W. HUTTON

Mr. Hutton entered the employ of Union Oil Company as a salesman in Portland, Ore., in July, 1916. A team of horses was turned over to him and he was told to go to it. He went to it, with a fair degree of success, serving in the Astoria district. Resigning, he returned to his original work as a mechanical and electrical engineer, in which business he continued until 1922. In that year he again entered the employ of the Union in Tillamook, Ore. During the next few years he burned a good deal of midnight oil and in June, 1926, he was transferred to Portland, Ore., as a lubricating engineer. Later he was transferred to Los Angeles, Calif., and within a short time he became assistant district manager in Fresno, Calif.

In July, 1929, Mr. Hutton was sent to Australia to assist in the organization of the lubricating oil sales department of the newly formed Atlantic Union Oil Company. Upon completion of this work, he returned to the headquarters of the company in Los Angeles as assistant manager of lubricating oil sales and received the appointment as manager of the department in October, 1930.

Before rejoining Union in 1922, Mr. Hutton had considerable experience in contacting lumber mills and logging camps and his mechanical training enabled him to solve perplexing problems for his customers.

D. E. EDWARDS has resumed his duties as chief field right of way man for the Oklahoma Pipe Line Company after a period of illness.

Dr. R. A. SMITH, of Lansing, Mich,. state geologist, addressed the Midland Business Men's Association of Midland, Mich., on the state's oil industry.

JAMES W. TOOKE, formerly with the Texaco Salt Products Company, is now on the research staff of the Phillips Petroleum Company, Bartlesville, Okla.

JAMES W. RAMSEY, recently awarded the Ph.D. degree from Cornell University, has accepted a position in the laboratories of the Socony Vacuum Oil Company, Brooklyn, N.Y.

J. R. SUMAN, vice president of the Humble Oil & Refining Company at Houston, Tex., made a tour of inspection through the company's holdings in coastal Louisiana the past week.

H. V. K. TOMPKINS, in the land department for the Continental Oil Company with headquarters at Ponca City, Okla., was a business visitor to the company's offices at Houston, Tex., last week.

CHET G. MAGUIRE, engineer for Carter Oil Company in the Oklahoma City field, has resigned to become factory representative for Axelson Manufacturing Company with headquarters at Oklahoma City.

L. F. McCOLLUM, head of the Carter Oil Company's exploration department, and MRS. McCOLLUM are visiting friends in Texas. Mr. McCollum will spend a part of his vacation deer and quail hunting in the Lone Star State.

RALPH N. SWANSON, of the Shreveport Times, on a visit with friends in Oklahoma City, Okla., says the Rodessa, Louisiana, boom has made a new oil town of Shreveport, and that it is hard to get a place to live in that city.

Advances in Gasoline Prices Feature of Atlantic Coast Refined Markets

By C. O. WILLSON

NEW YORK, Dec. 2. — Price changes in the gasoline markets of this territory over the past week were all increases. Effective today the Standard Oil Co. of New Jersey advanced service station prices .3 cent per gallon in its territory which included North and South Carolina, Maryland, Virginia, West Virginia, District of Columbia, and New Jersey. The company also advanced the tank car price on Essolene which is its regular branded grade containing Ethyl fluid, at Bayonne, N. J., and several other points. No changes were made in the tank car schedules on white gasoline. The new tank car price on Essolene at Bayonne is 7.05 cents per gallon.

No official explanation was given for the advance. In some quarters it was said that it reflected the higher tanker rates on shipments from the Gulf. Clean tankers for coastwise movement have been scarce at 30 to 32 cents per barrel over the past month. Based on gasoline, these rates are about double the normal charges and mean an increase in the delivered cost at seaboard terminals of approximately .25 cent per gallon. It is also pointed out that prices on the white grade of gasoline were recently advanced one-fourth cent without any change in retail prices at that time. Other observers believe that the advance reflects the strong gasoline marketing situation in this territory which justifies an advance in prices so that wholesale and retail marketing schedules are more in line with manufacturing and distributing costs.

It is believed that the advance in retail gasoline prices will spread to include New York and the New England states in which the Socony-Vacuum Oil Co., Inc., is the principal distributor and possibly Pennsylvania and Delaware the principal marketing area of the Atlantic Refining Co. In New York and New England, the Socony-Vacuum company has been making advances at points which were below normal and except for a few points in western New York, retail schedules are nearer normal than any time in several months. The company last week advanced retail gasoline 1 cent at Providence and several other Rhode Island and Massachusetts points. The tank car price at Providence was also advanced one-half cent.

The gasoline tank car market on white grades in this territory continues tight at prices ranging from 6 to 6½ cents, depending on octane rating. One major refiner and distributor said its stocks at important terminals had not been as low in several years. There seemed to be general agreement, however, that this situation would change within the next two or three weeks as consumption declined and refiners catch up on the shipments. Part of the tightness in this territory is said to be due to the reluctance on the part of buyers to pay the high tanker rates. Companies with their own tankers or a regular chartering arrangement at lower rates were inclined to make whatever temporary arrangements necessary to keep their terminals supplied with gasoline until the tanker shortage was ended. It was said that supplies at the Gulf have increased and were obtainable at current quotations to those who were willing to pay the high open tanker rates for coastwise delivery. It was believed that by the middle of December the situation would have changed to the point where tanker rates would be lower and supplies adequate.

It is felt that the market for bunker fuels is gradually tightening in addition to the fact that tanker rates have increased delivered cost on spot shipments from the Gulf Coast approximately 10 cents per barrel. This market started to decline on October 1, 1934, when the price in New York harbor dropped from $1.30 to $1.15 per barrel not including lighterage charge of 5 cents per barrel. The $1.30 price was in effect from late March until October 1. The market remained steady at the $1.15 level until last summer when conditions brought about largely by competition of South American fuel and the new Iraq supply in France, brought two reductions to the present level of 95 cents per barrel.

It is felt that the present price is too low in relation to posted crude prices in the Mid-Continent and Gulf Coast and that an advance of 10 or more cents per barrel will be supported in both domestic and export markets. It is pointed out in recent weeks there has been a small decline in total stocks of fuel oil and gas oil despite the heavy production in California following a period last spring and summer when inventories were increasing reapidly. In this territory there has been a steady decline in stocks of fuel oil and gas oil at refineries over the past two months. The following table shows the stocks as of October 5 and the week to week changes during November (in barrels):

Date—	Refinery stocks
October 5	13,528,000
November 2	13,767,000
November 9	13,767,000
November 16	13,324,000
November 23	12,094,000

On December 1, 1934, the stocks totaled 14,750,000 bbls., or approximately 2,750,000 bbls. more than the existing inventories. Last week spot cargoes of bunker fuel were quoted 75 cents at the Gulf. On the basis of a 30-cent per barrel tanker rate this would mean a delivered cost of $1.05 in New York harbor. It is said that the European market situation on fuels to the marine trade has improved to the point that more business will be available to Dutch West Indies and American sellers.

The market on the overhead fuels in this territory is marking time awaiting the arrival of cold weather. Periods of low temperatures in this territory have been of short duration and improvement in consumer demand for furnace oils and other light fuels has been disappointing. Those in a position to know continue to maintain that 30 days of cold weather will show there are no excess supplies of burning oils and light fuels in this territory. Due to the delayed demand there are occasional reports of price concessions in both tank car and barge deliveries. Prices range from 4 to 5 cents depending on grade with kerosene and range oil also quoted at 5 cents by all the larger refiners and terminal operators.

No changes were reported in domestic prices on other products. The export demand for bright stocks and paraffin base neutral oils does not appear to be as active as it was a month ago. It is said that part of the demand at this time was due to sizeable orders from Italy and other European countries. The purchases placed in this section were for Pennsylvania Grade products. The No. 8 Pennsylvania bright stock in barrels for export continues to be quoted at 26 to 26½ cents with 200-3 neutral 29½ cents.

Wax prices are steady. There has been a fair export demand for both crude scale and the refined grades and the domestic demand has shown the usual seasonal increase. Crude scale prices for the grades ranging from 122 to 126 are 2.20 to 2.30 cents per pound.

There were inquiries in the Gulf market for two cargoes of 375 endpoint gasoline. It is said those quoting asked 5¾ cents.

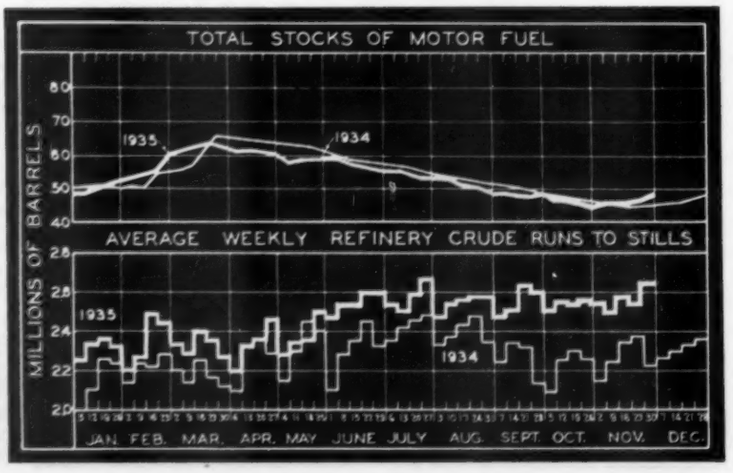
A. P. I. Weekly Refinery Statistics

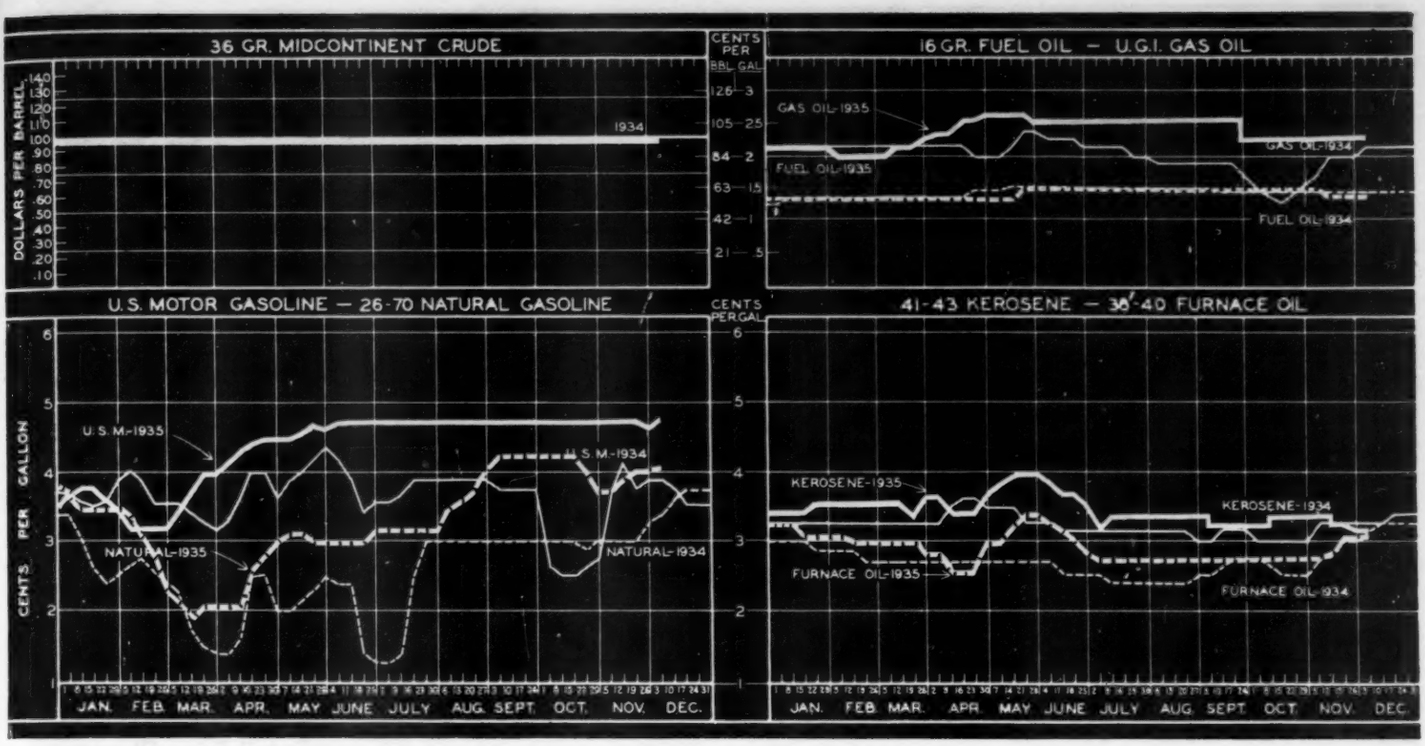
Week Ending November 30, 1935

	Capacity reporting per cent	Daily crude runs (bbls.)	Total gasoline (bbls.)	Gas oil and fuel oil (bbls.)
East Coast	100.0	493,000	12,835,000	11,559,000
Appalachian	94.8	111,000	2,055,000	955,000
Indiana, Illinois, Kentucky	95.9	334,000	7,866,000	3,892,000
Oklahoma, Kansas, Missouri	84.8	232,000	5,255,000	4,610,000
Inland Texas	48.5	97,000	1,361,000	1,702,000
Texas Gulf	96.8	615,000	6,487,000	10,778,000
Louisiana Gulf	96.4	138,000	1,420,000	4,994,000
North Louisiana and Arkansas	90.0	48,000	286,000	540,000
Rocky Mountains	61.9	46,000	823,000	771,000
California	92.6	522,000	10,160,000	66,480,000
Total United States	89.6	2,636,000	48,548,000	106,281,000

Stocks (barrels)—	Nov. 30, 1935	Dec. 1, 1934
Finished gasoline	43,190,000	40,831,000
Unfinished gasoline	5,358,000	4,738,000

NOTE: In addition to above there are stocks classified as "Stocks of Other Motor Fuel." These stocks total around 5,500,000 bbls. but show only minor changes and are not included in this weekly summary.





Group 3 Gasoline Regaining Its Former Health After a Temporary Setback

By T. F. SMILEY

The Group 3 tankcar gasoline market, which had been limping painfully, threw away the cane and was striding along more vigorously this week, apparently fast regaining its former health. The recent drop of an eighth-cent in price had acted as a corrective, and observers expressed fuller confidence in the outlook for the winter season than they did before the shortlived slump.

Reported accumulations of unwieldy stocks in East Texas sent bargain-hunters into that area last week and offerings at the lower quotations then ruling were picked up rapidly. Stories regarding the size of excess inventories seem to have been exaggerated, however. For instance, 50 cars rumored to be looking for a buyer at one refinery dwindled to two upon investigation. By Monday of this week all East Texas supplies which might have become distress material had been absorbed, and as a result of intercompany buying the rest of the Mid-Continent territory was reported free of surplus stocks. On Tuesday the level of prices which had ruled throughout the summer, and then had sagged temporarily was being restored.

Eastern Market Is Helpful

The tightening gasoline market on the East Coast was a bracing influence in the Group 3 territory, prompting inquiries even from jobbers in the Middle Atlantic states, which normally draw upon refiners nearer the point of consumption.

Promise of expanded export business also exercised a tonic effect. A reported export inquiry for 375-endpoint material, if converted into an order, was expected to make demands upon East Texas output which, added to the regular week-to-week movement, would produce a sold-out condition in that district throughout December.

Cheering news of the week included a report that refiners in the Mid-Continent area had begun a more drastic cutting of runs to stills. This, it had been pointed out, was essential to preservation of a stabilized tankcar market during the winter period of reduced consumption.

It is becoming more evident, observers say, that the demand for motor fuels of the lower octane ratings is filling a diminishing proportion of the total, with corresponding rise in sales of material of higher antiknock quality. Most of the new cars now replacing the ones which served their owners throughout the depression period are equipped with higher-compression engines, which do not do their best with the cheaper grades of gasoline. Furthermore, motorists, feeling less and less the pinch of hard times, have become "knock conscious," and are more particular about the character of the gasoline that goes into the tank.

Natural gasoline, which began moving into more favorable ground a month ago, improved its position still further this week, when quotations stiffened and indications of a tighter market increased. Several conditions contributed to the better outlook. These included brisk domestic and export demand, along with a growing belief that plants now operating in the Texas Panhandle will be closed again soon—this time permanently.

Movement of natural to the Gulf has been increasing. One company loaded three cargoes for export and coastwise shipment in the last week. Four inquiries for cargo shipments point to further heavy demand upon the available supplies.

Panhandle Decision Expected

A court decision on the constitutionality of the gas conservation law in Texas is expected this month and feeling in the trade is that the measure will be upheld. In that event, natural gasoline plants in the Panhandle, now running under injunctions against the Texas Railroad Commission order based on the new law, will be closed, taking 200,000 gallons daily off the market.

Bright stocks and neutrals continued strong, with likelihood of price increases growing. As war clouds gather over Europe it is believed probable that various nations will buy and store lubricants.

Kerosene was slow. Not much change was noticeable in the furnace oils, though there was slightly heavier movement on contract. Gas oils were listless. Although the industrial demand has risen seasonally, it does not make up for the curtailed use in cracking operations. Fuel oils were sluggish. Wax was strong and hard to find.

Refined Oil Market Barometer

The outlook for motor fuel, natural gasoline and the lubricants is believed to have improved in the last week, with promise of satisfactory business in the heating oils. Reports that refiners whose runs to stills were out of line with demand have curtailed these adds to the feeling of confidence. Most price changes of the week were upward.

MID-CONTINENT. Gasoline recovering from setback. Naturals firmer. Kerosene slow.

EAST COAST. Gasoline stronger. Bunker fuels tightening. Bright stocks, neutrals not so active.

GULF COAST. Gasoline and kerosene firm. Good demand for furnace oils.

PENNSYLVANIA. General market featureless.

CALIFORNIA. Stabilization plan under consideration expected to strengthen gasoline.

CHICAGO. Gasoline steadier, but spotty. Heating oils firming up.

RETAIL OIL MARKETS

Tank wagon and filling station prices on gasoline and kerosene furnished by the larger marketing firms

Prices as of December 3, 1935

Taxes

The gasoline quotations given in the following tables include the 1-cent federal tax, as well as state, county and city taxes. The gasoline is the regular or standard grade. In most areas a third grade and a premium grade are also available.

Discounts

Under the standard form of commercial consumer contract which went into effect March 1, 1934, save in California, Oregon, Washington, Arizona and Nevada, a discount of 1 cent a gallon off tank wagon or 3 cents a gallon off retail prices is permitted for purchases between 4,000 and 10,000 gallons per month, or 4 cents a gallon off retail prices for purchases in lots of more than 10,000 gallons a month. The minimum delivery is 25 gallons.

Standard Oil Co. (Indiana)

	Gasoline Tank wag.	Gasoline Serv. sta.	Gasoline Inc. tax	Kero. tank wag.
Chicago	14.0	16.0	4.0	9.5
Decatur, Ill.	15.5	16.5	4.0	9.5
E. St. Louis	15.2	17.2	4.0	9.5
Joliet	15.5	16.0	4.0	9.5
Peoria	15.5	15.5	4.0	9.5
Quincy	15.3	17.3	4.0	8.0
Davenport, Ia.	15.5	(†)	4.0	9.5
Des Moines	15.3	(†)	4.0	9.6
Mason City	15.7	(†)	4.0	10.0
Sioux City	15.5	(†)	4.0	9.5
Duluth, Minn.	16.3	18.3	4.0	10.6
Mankato	15.9	17.9	4.0	10.2
Minneapolis	15.9	17.9	4.0	10.2
LaCrosse, Wis.	16.9	*8.9	5.0	10.2
Green Bay	17.2	19.2	5.0	10.5
Milwaukee	15.3	16.3	5.0	10.1
Madison	16.9	18.9	5.0	10.2
Detroit, Mich.	13.5	15.5	4.0	9.3
Grand Rapids	15.6	15.6	4.0	8.0
Saginaw	16.1	16.1	4.0	9.3
Evansville, Ind.	17.2	19.2	5.0	10.3
Indianapolis	17.4	19.4	5.0	10.5
South Bend	17.6	19.6	5.0	12.0
Fargo, N. Dak.	16.9	18.9	4.0	11.2
Huron, S. Dak.	17.4	19.4	5.0	10.7
Sioux Falls	16.9	18.9	5.0	10.2
Kan. City, Mo.*	14.9	16.9	4.0	7.0
Springfield	14.6	16.6	4.0	9.9
St. Louis	15.2	17.2	3.5	9.5
St. Joseph*	14.9	16.9	4.0	9.2
Wichita, Kans.	14.4	16.4	4.0	6.8
Bartlesville, Ok.	16.0	18.0	5.0	8.5

*State tax 2 cents, 1-cent city tax and 1-cent federal tax.

†Standard Oil Co. (Indiana) has leased all service stations in Iowa.

Discounts to dealers: Undivided accounts, 1½ cents on premium and regular and 2½ cents on third grade off service station prices; divided accounts one-half cent less than undivided. Discounts to dealers in metropolitan Chicago one-half cent larger than rest of Standard of Indiana territory, namely 4 cents and 3 cents on respective grades. Where prices are more than 1 cent below normal, the discounts are one-half cent less than above.

Stanolex Furnace Oil in Chicago

Effective June 27, 1935, f.o.b. Chicago tank wagon prices: Range oil, less than 100 gallons, 8.5 cents; 100-149 gallons, 7.5 cents; 150 gallons and more, 7.0 cents. No. 1 (34-40 R. stw. zero), less than 100 gallons, 8.5 cents; 100-149 gallons, 7.5 cents; 150 gallons or more, 7.0 cents; No. 2 (30-34 stw. zero), same prices and quantities as No. 1; No. 3 (22-26, zero), less than 150 gallons, 7.2 cents; 150 gallons or more, 6.2 cents. No. 4 (12-16 zero): less than 400 gallons, 7.2 cents; 400 gallons or more, 6.2 cents. viscosity of No. 4, 5" and 100° F.; No. 5, less than 400 gallons, 5½ cents; 400 gallons or more 4½ cents.

Rocky Mountain District

CONTINENTAL OIL CO.

	Gasoline Tank wag.	Gasoline Serv. sta.	Gasoline Inc. tax	Kero. tank wag.
Denver, Colo.	18.0	20.0	5.0	11.0
Pueblo	18.0	20.0	5.0	13.0
Grand Junction	20.5	22.5	5.0	15.0
Casper, Wyo.	18.5	20.5	5.0	11.5
Cheyenne	18.5	20.5	5.0	13.0
Butte, Mont.	21.0	23.0	5.0	17.5
Billings	19.5	21.5	6.0	16.5
Helena	21.5	23.5	6.0	17.5
Great Falls	20.5	22.5	6.0	17.5
Salt Lake, Utah	16.0	18.0	5.0	16.0
Twin Falls, Ida.	33.0	35.0	6.5	18.0
Boise	22.5	24.5	6.0	18.0
Albu'que, N. M.	20.0	22.0	*6.5	13.0

*One-half cent city tax.

Discount to dealers with or without contract in Continental territory: Undivided dealer discount off service station price, 4 cents; divided dealer accounts, 3½ cents.

Southern District

STANDARD OIL CO. OF KENTUCKY

	Gasoline Tank wag.	Gasoline Serv. sta.	Gasoline Inc. tax	Kero. tank wag.
Atlanta, Ga.	20.0	22.0	7.0	12.0
Augusta	20.0	22.0	7.0	14.0
Macon	20.0	22.0	7.0	13.0
Savannah	18.0	20.0	7.0	14.0
Birm'ham, Ala.	21.0	23.0	8.0	12.0
Mobile	19.0	21.0	8.0	10.0
Montgomery	22.0	24.0	8.0	15.5
Jackson, Miss.	19.0	21.0	7.0	11.0
Vicksburg	19.0	21.0	7.0	12.0
Jacksonville, Fla.	18.5	20.5	8.0	10.0
Miami	18.5	20.5	8.0	13.5
Pensacola	19.0	20.0	8.0	11.5
Tampa	18.5	20.5	8.0	11.0
Lexington, Ky.	19.5	21.5	6.0	10.0
Covington	18.0	20.0	6.0	11.5
Louisville	18.5	20.5	6.0	10.0
Paducah	18.5	20.5	6.0	10.0

In addition to the state tax of 6 cents Montgomery, Ala., has a county tax of 1 cent per gallon and a city tax of 1 cent per gallon on gasoline, and 1 cent per gallon on kerosene. Mobile and Birmingham, Ala., each have a city gasoline tax of 1 cent per gallon. Pensacola, Fla., has a city gasoline tax of 1 cent.

Southwestern District

MAGNOLIA PETROLEUM CO.

	Gasoline Tank wag.	Gasoline Serv. sta.	Gasoline Inc. tax	Kero. tank wag.
Dallas, Tex.	15.0	17.0	5.0	7.0
Fort Worth	15.0	17.0	5.0	7.0
Houston	16.0	18.0	5.0	8.0
San Antonio	16.0	18.0	5.0	8.0
El Paso	17.0	19.0	5.0	10.0
Muskogee, Ok.	16.0	18.0	5.0	7.0
Okla. City	16.0	18.0	5.0	8.0
Tulsa	16.0	18.0	5.0	8.0
Ft. Smith, Ark.	15.0	18.5	5.0	8.0
Little Rock	17.5	21.0	7.5	9.5
Texarkana	16.0	18.0	5.0	8.0

Atlantic Coast District

STANDARD OIL CO. OF NEW JERSEY

	Gasoline Tank wag.	Gasoline Serv. sta.	Gasoline Inc. tax	Kero. tank wag.
Atl'tic City, N. J.	13.5	17.0	4.0	9.0
Newark	13.5	17.0	4.0	7.5
Annapolis, Md.	14.8	18.3	5.0	10.0
Baltimore	14.3	17.8	5.0	7.5
Cumberland	15.8	19.3	5.0	12.7
Wash'g'n, D. C.	12.5	16.0	3.0	9.0
Danville, Va.	16.6	20.1	6.0	12.9
Norfolk	15.1	18.6	6.0	11.3
Petersburg	15.8	19.3	6.0	11.7
Richmond	13.8	17.3	6.0	11.7
Roanoke	16.8	20.3	6.0	12.9
Charles'n, W. Va.	15.0	18.5	5.0	12.6
Parkersburg	14.3	17.8	5.0	11.2
Wheeling	14.5	18.0	5.0	12.2
Charlotte, N. C.	17.9	21.4	7.0	12.9
Hickory	18.2	21.7	7.0	13.1
Mt. Airy	18.2	21.7	7.0	13.2
Raleigh	17.6	21.1	7.0	12.7
Salisbury	18.0	21.5	7.0	13.0
Charleston, S. C.	16.2	19.7	7.0	11.3
Columbia	17.5	21.0	7.0	12.6
Spartanburg	17.9	21.4	7.0	12.9

Tank wagon gasoline refers to dealer instead of retail prices.

Price basis to dealers: Undivided dealers at regular price less one-half cent. Discount for kerosene, 1 cent off tank wagon price for 25 gallons or more under contract (contract not necessary in Baltimore) except in New Jersey, where no discount (if necessary) is given.

Nebraska

STANDARD OIL CO. OF NEBRASKA

	Gasoline Tank wag.	Gasoline Serv. sta.	Gasoline Inc. tax	Kero. tank wag.
Omaha	17.9	19.9	6.0	10.1
McCook	18.6	20.6	6.0	10.8
Norfolk	18.2	20.3	6.0	10.5
North Platte	18.7	20.7	6.0	10.9
Scottsbluff	19.4	21.4	6.0	11.6

Note: Discounts to dealers: where service station gasoline prices are (maximum overall, including rent) as follows: Reliance, 2½ cents; Standard Red Crown, 3½ cents; Red Crown Ethyl, 3½ cents.

Where service station gasoline prices are below normal resellers' allowances are reduced one-half of the amount below normal, down to the following (minimum overall, including rent): Reliance, 2 cents; Standard Red Crown, 3 cents; Red Crown Ethyl, 3 cents. Discounts to consumers for tank wagon deliveries covered only by Standard Commercial Consumers Contract, effective January 1, 1935.

Ohio

STANDARD OIL CO. OF OHIO

	Gasoline Tank wag.	Gasoline Serv. sta.	Gasoline Inc. tax	Kero. tank wag.
Ohio points	17.0	19.0	5.0	*12.5

*Includes state tax of 1 cent.

Pennsylvania, Delaware and Part of New England

ATLANTIC REFINING CO.

	Gasoline Tank wag.	Gasoline Serv. sta.	Gasoline Inc. tax	Kero. tank wag.
Philadelphia, Pa.	16.0	18.0	5.0	9.0
Pittsburgh	17.0	19.0	5.0	10.0
Allentown	16.5	18.5	5.0	9.0
Erie	16.0	18.0	5.0	8.0
Scranton	16.5	18.5	5.0	10.0
Altoona	17.0	19.0	5.0	9.0
Dover, Del.	16.5	18.5	5.0	10.0
Wilmington	14.0	14.0	5.0	9.0
Springf'd, Mass.	13.5	17.0	4.0	7.25
Worcester	13.5	17.0	4.0	7.5
Hartford, Conn.	12.5	16.0	3.0	6.75
New Haven	12.5	16.0	3.0	6.75
Providence, R. I.	12.5	14.0	3.0	7.0

Note—Tank wagon prices are those applicable to consumers purchasing lots of 100 or more gallons in one delivery.

Central South District

STANDARD OIL CO. OF LOUISIANA

	Gasoline Tank wag.	Gasoline Serv. sta.	Gasoline Inc. tax	Kero. tank wag.
N. Orleans, La.	18.0	21.5	‡8.0	12.0
Baton Rouge	17.0	20.5	†7.0	11.5
Alexandria	18.0	21.5	†*8.0	10.5
Lafayette	18.5	22.0	‡*8.0	12.5
Lake Charles	18.5	22.0	†*8.0	†11.0
Shreveport	16.5	20.0	†7.0	9.0
Knoxville, Tenn.	20.5	24.0	8.0	14.0
Memphis	18.5	22.0	8.0	9.5
Chattanooga	20.0	23.5	8.0	11.5
Nashville	19.5	23.0	8.0	10.0
Bristol	18.35	21.1	8.0	14.5

*Includes city tax of 1 cent.

†Includes 1-cent parish tax. ‡Includes 2 cent parish tax.

Tank wagon gasoline refers to dealer instead of retail prices.

Price basis to dealers: Undivided dealers at dealer price less one-half cent.

Louisiana kerosene prices include 1-cent state tax.

New York and New England

SOCONY-VACUUM CO., INC.

	Gasoline Post deal	Gasoline Serv. sta.	Gasoline Inc. tax	Kero. tank wag.
Albany, N. Y.	14.5	18.0	5.0	7.5
*Met. New York	15.25	19.5	5.0	7.0
*Br'kl'n, Queens	15.0	19.0	5.0	7.0
Buffalo	12.0	14.0	5.0	8.0
Rochester	14.0	17.0	5.0	8.0
Syracuse	13.5	16.0	5.0	8.5
Boston, Mass.	13.5	17.0	4.0	6.75
Portland, Me.	15.0	18.5	5.0	7.5
Manch'ter, N. H.	15.0	18.5	5.0	7.75
Burlington, Vt.	16.5	20.0	5.0	8.5

*Does not include 2 per cent city sales tax which is calculated on basis of net retail price exclusive of state and federal taxes.

Pacific Coast Territory

STANDARD OIL CO. OF CALIFORNIA

	Gasoline Tank wag.	Gasoline Serv. sta.	Gasoline Inc. tax	Kero. tank wag.
San Francisco	14.0	16.0	4.0	10.0
Los Angeles	13.5	15.5	4.0	10.5
Fresno, Calif.	14.5	16.5	4.0	9.0
Phoenix, Ariz.	18.0	20.0	6.0	‡16.0
Reno, Nev.	17.0	19.0	5.0	13.0
Portland, Ore.	16.5	18.5	6.0	13.5
Seattle, Wash.	16.5	18.5	6.0	13.5
Tacoma	16.5	18.5	6.0	13.5
Spokane	19.5	21.5	6.0	16.5

*Retail prices posted by Standard Stations, Inc., a subsidiary.

†Prices are at company's plant or depots, as company does not operate stations. A 4-cent per gallon discount is given dealers and customers taking tank wagon lots except in Phoenix where discount is 1 cent.

‡Includes 5-cent state tax.

Canada*

Imperial 3-Star Gasoline

IMPERIAL OIL, LTD.

	Gasoline Tank wag.	Gasoline Serv. sta.	Gasoline Inc. tax	Kero. tank wag.
Hamilton, Ont.	21.0	23.5	6.0	16.5
Toronto, Ont.	21.0	23.5	6.0	16.5
Brandon, Man.	30.3	33.3	7.0	21.9
Winnipeg, Man.	28.7	31.7	7.0	20.2
Regina, Sask.	30.0	33.0	7.0	21.5
Saskatoon, Sask.	32.8	35.8	7.0	24.3
Edmonton, Alta.	32.2	35.2	7.0	23.7
Calgary, Alta.	29.5	32.5	7.0	21.0
Vancouver, B. C.	26.0	29.0	7.0	24.0
Montreal, Que.	20.5	23.0	6.0	17.0
St. John, N. B.	26.0	30.0	8.0	19.5
Halifax, N. S.	26.0	30.0	8.0	19.5

*Imperial gallon used in Canada.

In maritime provinces all dealers get 4 cents off service station price. In all other provinces open dealers get 3 cents off service station price and 1 cent additional to 100 per cent accounts, except Montreal City, Hamilton and Toronto, where open dealers get 2½ cents off service station price with 1 cent additional to 100 per cent accounts.

Naphtha

STANDARD OIL CO. (INDIANA)

	Tank wagon*
Oleum spirits	15.7
V.M.&P. naphtha	16.0
Cleaners' naphtha	15.0
Stanisol	15.0

*Prices include 3-cent Illinois tax, but not 1-cent federal tax or 3 per cent retail occupational tax.

Prices f.o.b. Chicago. Each price subject to discount of 1 cent per gallon for 150-gallon lots if covered by contract.

Retail Price Changes

Standard Oil Co. (Indiana) November 26 advanced tank wagon and station gasoline 2 cents in Kansas City.

Continental Oil Co. November 26 reduced tank wagon and station gasoline 2 cents in Salt Lake City.

Standard Oil Co. of New Jersey November 23 reduced tank wagon gasoline 1 cent in Richmond; reduced tank wagon and station gasoline 1 cent in Wheeling.

Standard Oil Co. of Nebraska November 27 advanced tank wagon and station gasoline 1 cent at all Nebraska points due to a 1-cent additional state tax effective November 26.

Standard Oil Co. of Louisiana November 25 advanced tank wagon and station gasoline .5 cent at all Louisiana points.

Standard Oil Co. of California November 26 advanced tank wagon and station gasoline .5 cent in San Francisco, Los Angeles, Fresno, Phoenix and Reno.

Imperial Oil, Ltd., November 22 advanced tank wagon and station gasoline 1.5 cents in Vancouver.

Magnolia Petroleum Co. November 21 advanced tank wagon kerosene 1 cent in Texarkana.

Tax Exhibit at Expo

An arrangement for cooperation between the International Petroleum Exposition and the American Petroleum Industries Committee of the A.P.I. to sell the oil industry on reducing taxes on itself was completed in Tulsa this week when Baird H. Markham met with President W. G. Skelly and General Manager W. B. Way.

Mr. Markham, director of the industries committee, said the hardest job is to sell our own industry on the "reduction in taxes" campaign.

The committee will have two prominent exhibits at the International Petroleum Exposition here next May 16 to 23 under arrangements made by General Manager Way.

PRICES ON REFINED PRODUCTS

All quotations f.o.b. plant in cars for interstate or export movement except as otherwise noted

Prices as of December 3, 1935

The following quotations are exclusive of the federal excise taxes of 1 cent a gallon on gasoline and 4 cents on lubricating oils.

Refinery Gasoline

OKLAHOMA (Group 3)—

U. S. Motor grades:		
Below 63 octane	.04¾	.04⅞
63-70 octane	.05⅝	.05⅝
60-62 400 grade:		
Below 63 octane	.04¾	.04⅞
63-70 octane	.05⅝	.05⅝
64-66 375	.04⅞	.05
68-70 360	.05	.05⅛

NORTH TEXAS—

U. S. Motor grades:		
Below 63 octane		.04⅝
63-70 octane		.05⅝
60-62 400	.04¾	.04⅝
64-66 375	.04⅞	.05

NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—

U. S. Motor grades:	
Below 63 octane	.05⅛
63-70 octane	.06¼
60-62 400	.05⅛

ARKANSAS (Ark., N. La., Miss. del.)—

U. S. Motor grades:	
Below 63 octane	.05⅛
63-70 octane	.06¼

CHICAGO (based on Group 3)—

U. S. Motor grades:		
Below 63 octane	.04¾	.04⅝
63-70 octane	.05⅝	.05⅞
60-62 400	.04⅝	.04¾
64-66 375	.04⅞	.05
68-70 360	.05	.05⅛
Aviation fighting grade	.05⅝	.06

PENNSYLVANIA (inland refineries)—

58-60 U. S. Motor:		
Below 60 octane		.05¼
60-64.9 octane		.06⅜
65-70 octane		.07
64-66 375		.05⅜
68-70 350		.05⅝

CALIFORNIA (domestic movement)—

54-58 U. S. Motor	.05	.06
58-60 400	.05¾	.06½

EAST COAST—

U. S. Motor, below 60 octane:		
*New York (Bayonne)		.06
Baltimore		.06
U. S. Motor, 60-64.9 octane:		
*New York (Bayonne)		.06¼
Philadelphia		.06¼
Boston	.06¼	.06½
Baltimore		.06¼
Charleston, S. C.		.06¼
U. S. Motor, 65 and above:		
*New York (Bayonne)		.06½
Philadelphia		.06½
Boston	.06½	.06¾
Baltimore		.06½
Charleston, S. C.		.06½

*All grades of gasoline one-fourth cent less for barge shipments.

GULF COAST (domestic)—

U. S. Motor grades:		
Below 60 octane		.05
60-64.9 octane	.05¼	.05½
65 octane and higher		.05⅝

Naphtha

PENNSYLVANIA (inland refineries)—

50-52 450 (blending)	.05⅛
52-54 450 (blending)	.05⅛
54-56 450 (blending)	.05¼

CHICAGO (based on Group 3)—

50-52 450 (blending)	.04¾	.05
Cleaners' naphtha, 56-58 gr., 200 l.b.p., 20 e.p.	.06⅞	.07
Lacquer diluent, 180 l.b.p., 250 e.p.	.07⅝	.08
Lacquer diluent, 140 l.b.p., 200 e.p.	.08⅜	.09
Rubber solvent, 68-70 gr., 100 l.b.p., 300 e.p.	.06⅞	.07
Stoddard solvent, 300 l.b.p., 410 e.p., over 83° flash	.06⅝	.06½
Pet. thinner, 200-300 l.b.p., 410 e.p., over 83° flash	.06⅝	.06½
V.M.&P. naphtha, 56-58 gr., 190-200 l.b.p., 330° e.p.	.06⅞	.07
Petroleum spirits	.05⅞	.06

Natural Gasoline

OKLAHOMA (Group 3)—

Grade 26-70		.04⅛
Grade 18-55	.04⅞	.05
Low vapor pressure grade:		
*14 lb. v.p. (max.)	.05⅜	.05⅝
*12 lb. v.p. (max.)	.05⅝	.06

NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—

Grade 26-70	.04¼	.04⅜

NORTH TEXAS—

Grade 26-70	.03⅞	.04
Grade 18-55	.04⅝	.04⅝
*14 lb. v.p. (max.)	.05½	.05⅝
*12 lb. v.p. (max.)	.05⅝	.05⅝

CALIFORNIA—

75-85 375-390	.04½	.05½

*Nominal.

Kerosene

(All kerosene water white)

OKLAHOMA (Group 3)—

41-43	.03⅛	.03⅝
42-44	.03⅜	.03½

NORTH TEXAS—

41-43	.03¼	.03⅛

NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—

41-43	.03⅜

ARKANSAS (Ark., N. La., Miss. del.)—

41-43	.04¼

PENNSYLVANIA (inland refineries)—

45	.04⅝
46	.04⅞
47	.05

CHICAGO (based on Group 3)—

41-43	.03¼	.03⅛
42-44	.03⅛	.03⅜

CALIFORNIA (Pac. Coast market)—

38-40 high burning test	.04⅜	.05

NEW YORK (Bayonne, N. J.)—

*41-43	.05

GULF COAST (domestic)—

41-43	.04⅛	.04⅛

*Barge price one-eighth cent lower.

Petroleum Coke

(Prices per ton f.o.b. Chicago area. Refineries absorb freight to 80 cents a ton.)

Pile run	6.25
Direct from still	7.25
Egg, nut, pea	8.00
Lump	8.75

Furnace Oil

OKLAHOMA (Group 3)—

No. 1 prime white, 38-42	.03⅛	.03¼
No. 1 straw, 38-40	.03	.03⅛
No. 2 straw, 32-36	.02⅞	.03⅛
No. 2 dark, 32-36	.02⅞	.03
No. 3, 28-32	.02¾	.02⅞
No. 3, 15 and above, 28-32	.02⅛	.02⅝

NORTH TEXAS—

No. 1 prime white, 38-42	.03⅛	.03⅜
No. 1 straw, 38-40	.03	.03⅛

NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—

No. 2, 32-36	.03⅛	.03¼

ARKANSAS (Ark., N. La., Miss. del.)—

No. 2, 32-36	.03⅛
No. 3, 28-32	.03¼

CHICAGO (based on Group 3)—

No. 1 prime white, 38-40	.03⅛	.03⅜
No. 1 straw, 38-40	.03	.03¼
No. 2 straw, 32-36	.03	.03¼
No. 2 dark, 32-36	.02¾	.03
No. 3, zero to 15, 28-32	.02¾	.02⅞
No. 3, 15 and above, 28-32	.02¼	.02⅛

NEW YORK (Bayonne, N. J.)—

*No. 1	.04⅞	.05
*No. 2		.04¼
*No. 4		.04

*Barge deliveries one-eighth to one-fourth cent under above tank car price.

Gas Oil and Fuel Oil

(Gas oil per gal., fuel oil per bbl.)

OKLAHOMA (Group 3)—

U.G.I. gas oil	.02¼	.02⅜
No. 4, 24-28	.87½	.90
No. 4, 15 and above, 24-28	.75	.80
No. 5	.70	.75
No. 6	.65	.67½
Below 18 fuel oil, industrial	.60	.65

NORTH TEXAS—

U.G.I. gas oil	.02⅛	.02¼
No. 4, 24-28	.87½	.90
No. 5	.70	.75
No. 6	.65	.67½
Below 18 fuel oil, industrial	.60	.65

NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—

U.G.I. gas oil	.02⅜	.03
10-14 fuel oil, industrial	.75	.80

ARKANSAS (Ark., N. La., Miss. del.)—

10-14 fuel oil, industrial	.60	.65

CHICAGO (based on Group 3)—

U.G.I. gas oil	.02¼	.02⅜
No. 4, 24-28	.87½	.90
No. 4, 15 and above, 24-28	.72½	.77½
No. 5, 18-22	.62½	.67½
No. 6, 10-16	.52½	.55

Fuel oils of more than 40 cold test generally 5 to 15 cents per bbl. in these areas.

PENNSYLVANIA (inland refineries)—

36-40	.04⅛	.04¼

CALIFORNIA—

Los Angeles:

30-34 gas oil, per bbl.	1.05	1.25
27 plus Diesel	1.05	1.25
27 plus Diesel (bunkers)	1.25	1.30
12-16 (bunkers at tidewater)	.87	.95
10-16 (cargo lots)	.75	.92½
12-17 (tank cars)	.65	.95

San Joaquin Valley:

10-18 (tank cars)	.60	.75

San Francisco:

27 plus Diesel, per bbl.		1.25
27 plus Diesel (bunkers)		1.35
10-16 (bunkers)		1.00

GULF COAST—

28-30 gas oil		.03¼
28-30 Diesel (bunkers)		1.70
Bunker C (bulk cargoes)		.70
Bunker C (bunkers)		.80

NEW YORK (Bayonne, N. J.)—

27 plus, gas oil	.04	.04¼
28-30 Diesel (lighterage 6½ plus per bbl.)		1.65
28-30 Diesel (tank cars)		.04¼
*Bunker C (to ocean-going ships in N. Y. harbor)		.95
Industrial fuel (tank cars)		.03⅞

*Lighterage charge 5c bbl. additional.

Neutral Oil

(Vis. at 100° F. except Pennsylvania and color N.G.A.)

OKLAHOMA (Group 3)—

Zero to 10 Cold Test:

150-3	.10
180-3	.11¼
180-4	.10⅝
200-3	.11⅝
200-4	.11¼
240-3	.13⅝
240-4	.13¼
280-3	.14⅝
280-4	.14
300-3½	.15⅛
400-3½	.16
100-2 paraffin oil	.05⅝

15-20 Cold Test:

200-3	.10⅝
200-4	.10¼
240-3	.12⅝
240-4	.12¼
280-3	.13⅝
280-4	.13

GULF COAST—

Pale Oils:

200-3	.07	.07⅛
300-3	.07⅛	.08
500-3½	.08½	.09
750-3½	.09	.09¼
1,200-3½	.09¼	.09⅝
2,000-4	.09⅝	.10

Red Oils:

200-5-6	.07	.07⅛
300-5-6	.07¼	.07½
500-5-6	.08	.08½
750	.08⅛	.09
1,200-5-6	.09¼	.09½

CALIFORNIA (moving to dom. market)

Pale Oils:

100-2½-3	.07	.07¼
200-2½-3	.07½	.07⅝
300-3-3½	.08	.08⅛
350-3-4	.09	.09¼
400-3-4	.09⅛	.09⅝
450-3-4	.10	.10¼
550-3-4	.10¼	.10½
600-3-4	.10½	.10⅝

Red Oils:

200-4-5	.07	.07¼
300-5-6	.07½	.07⅝
350-5-6	.08⅛	.08⅝
400-5-6	.09	.09¼
450-5-6	.09¼	.09½
500-5-6	.09½	.09⅝
600-5-6½	.10	.10¼
700-6½ plus	.10¼	.10½
750-6½ plus	.10½	.10⅝
900-6½ plus	.10⅝	.11

PENNSYLVANIA—

150 vis. at 70° F., color, 400-405 flash:		
Zero pour test	.21	.21½
10 pour test	.20	.20½
15 pour test	.19½	.20
25 pour test	.18½	.19
180 vis. at 70° F., 3 color:		
25 pour test	.21	.21½
200 vis. at 70° F., 3 color:		
Zero pour test	.25½	.26
10 pour test	.24½	.25
15 pour test	.24	.24½
25 pour test	.23	.23½

Bright and Steam Refined

OKLAHOMA (Group 3)—

Bright Stocks:		
190-200 D, 15-25		.20
150-160 D, 0-10		.17
150-160 D, 15-25		.16½
150-160 E, 15-25		.16
100-110 D, 0-10		.15⅝
Steam refined:		
630 green (treated)		.09½
600 light green, untreated		.08½
600 dark green, untreated	.05	.06

PENNSYLVANIA—

Bright Stocks (Pennsylvania grade, No. 8 color, 145-50 at 510; 540-550 flash):		
10 pour test	.22	.22½
15 pour test	.21	.21½
20 pour test	.20	.20½
25 pour test	.19	.19½
Steam refined:		
600	.09½	.10
650	.11	.11½
600 Pennsylvania flash	.12	.12½
630 flash	.17	.17½
600 Warren E filtered	.13	.13½

Wax and Petrolatum

(Prices per pound)

OKLAHOMA (Group 3)—

124-126 (a.m.p.) w.c. scale	.02¼	.02⅝

PENNSYLVANIA (inland refineries)—

122-124 (a.m.p.) w.c. scale	.0235	.0240
124-126 (a.m.p.) w.c. scale	.0235	.0240

NEW YORK—

Wax in bags fully refined:

123-125 (a.m.p.) wax		.0420
125-127 (a.m.p.) wax		.0430
128-130 (a.m.p.) wax		.0455
130-132 (a.m.p.) wax		.0480
133-135 (a.m.p.) wax		.0510
135-137 (a.m.p.) wax		.0565
124-126 (a.m.p.) w.s.		.0225
124-126 (a.m.p.) y.s.	.0220	.0225

Petrolatum in barrels, carload lots:

Dark green		.01⅞
Amber	.02⅞	.03
Extra amber	.03	.03⅛
Lily white	.06⅝	.06⅞
Snow white	.07⅜	.07⅝
Cream	.05⅝	.05⅞

CHICAGO (f.o.b. switching district; carload lots in bags, add 3¢ for a.m.p.)

122-124 (a.s.t.m.) wax	.0440	.0450
125-127 (a.s.t.m.) wax	.0465	.0475
127-129 (a.s.t.m.) wax	.0480	.0490
*130-132 (a.s.t.m.) wax	.0520	.0530
*132-134 (a.s.t.m.) wax	.0545	.0555

*For wax shipped in bulk or bag.

Export Prices

GASOLINE

GULF COAST—

U. S. Motor	.05¼	.05⅝
60-62 400		.05½
61-63 390		.05⅝
64-66 375	.05⅝	.05⅝

LOS ANGELES—

U. S. Motor grades:		
53-55 octane		.04
55-65 octane	.04	.04¼
65-67 octane	.04¼	.04½
67-69 octane	.04½	.04⅝
Above 69 octane	.04⅝	.05
58-60 400 endpoint	.04½	.05

KEROSENE

GULF COAST—

41-43 prime white		.03⅞
41-43 water white	.03⅞	.04
44 water white		.04¼

LOS ANGELES—

41-43 water white	.04¼	.04⅝

LUBRICANTS

(Pennsylvania Grade)

NEW YORK (f.o.s. in bbls.)—

Cylinder Stocks:		
600 Warren E	.19½	.20
600 S.R. unfiltered		.16½
650 S.R. unfiltered	.17½	.18
600 flash S.R.	.18½	.19
630 flash S.R.	.23	.24
Bright Stocks:		
8 color	.26	.26½
6½ plus colors in dilution		.25½

NEUTRAL OIL

200-3 color		.29⅛
150-3 color		.25

PARAFFIN WAX

NEW YORK (prices per pound)—

123-125 a.m.p.	.035	.03625
125-127 a.m.p.	.03625	.0375
128-130 a.m.p.	.03875	.0400
130-132 a.m.p.	.04125	.04250
133-135 a.m.p.	.04625	.04750
135-137 a.m.p.	.04875	.0500
Crude scale:		
124-126 w.s.	.0220	.0225
124-126 y.s.		.0220

CRUDE OIL PRICES

Oklahoma, Kansas, North Central and East Central Texas

Corsicana (heavy) (June 17, 1933) ... .80
East Texas $1.00
Other fields ..... (See gravity table)

West Texas

Crane Upton, Crockett, Howard, Glasscock, Mitchell (Sept. 29, 1933)..... $ .70
Ector, Winkler and Pecos Counties and Lea County, New Mexico (Sept. 29, 1933) ..... .75
Pecos County, Yates shallow Pool (Sept. 29, 1933)* ..... .65
Jones and Fisher Counties* ..... (See gravity table)

Rocky Mountain States

Iles, light, (Sept. 29, 1933) ..... $ .96
Iles, heavy (Sept. 29, 1933) ..... .90
Florence, Colo. (June 17, 1933)..... .90
Fort Collins and Wellington, Colo.. (June 17) .....(See Salt Creek prices)
Big Muddy (Sept. 29, 1933)..... 1.01
Frannie, light (May 1, 1934) ..... .70
Frannie, heavy (Sept. 29, 1933) ..... .62
Salt Creek and LaBarge (Sept. 29, 1933) ..... (See Stanolind Mid-Continent price schedule.)
Grass Creek, light (Sept. 29, 1933).. $1.18
Grass Creek, heavy (Sept. 29, 1933)... .62
Elk Basin (Sept. 29, 1933) 1.18
Rock Creek (Sept. 29, 1933)..... 1.02
Lance Creek (Dec. 16, 1932) ..... .92
Hudson (June 2, 1931) ..... .65
Lost Soldier (Sept. 30, 1933)..... .88
Hamilton Dome, all grades (Feb. 16, 1935) ..... .57
Torchlight (Sept. 29, 1933) 1.18
Greybull (Sept. 29, 1933) 1.18
Pondera (Sept. 29, 1933) 1.25
Sunburst (July 19, 1935) 1.20
Cat Creek, Montana 1.07
Hogback (Sept. 29, 1933) 1.11
Lea County, N. Mex. (Sept. 29, 1933).. .75
Maljamar (Sept. 29, 1933) ..... .70
Artesia-Jackson (Dec. 1, 1933)..... .75

Gulf Coast

Grade A and Grade B specification discontinued by leading buyers. ..... (See gravity table)
Hardin (Aug. 8, 1935) ..... $ .92
Tomball (see note)* 1.15
Livingston (Sept. 29, 1933)†..... 1.00
Cleveland (Jan. 11, 1934)..... 1.00
Greta (June 29, 1935) ..... .80
Refugio, light .....(See gravity table)
Refugio, heavy (June 29, 1935)‡ .. .80
Conroe.....(See Conroe gravity table)
Markham and High Island..... .....(See Gulf Coast gravity table)
Bosco, La. (Jan. 18, 1935)§ ..... .90

Anahuac and Dickinson posted by Humble August 20, 1935, price of 94 cents per barrel on 30-30.9 gravity with 2 cents per degree increase with top 40 gravity $1.14.

Note — Tomball, effective September 29, by Humble Oil & Refining Co. and October 2 by Magnolia Petroleum Co., and November 16 by Stanolind Crude Oil Purchasing Co.

*Greta posted by Texas Co. †Shell Petroleum Corp. ‡Refugio heavy by Humble Oil & Refining Co. Cleveland and Hardin posted by Magnolia Petroleum Co. §Bosco posted by Pure Oil Co.

Middle Western States

OHIO OIL CO.

Lima (Feb. 1, 1935) $1.15
Illinois (Jan. 5, 1934) 1.13
Princeton, Ind. (Jan. 5, 1934) 1.13
Plymouth ..... Shut in
Midland, Mich. (Nov. 7, 1935)*..... 1.13
West Branch, Mich. (Nov. 7, 1935).. .96
Ogemaw, Mich. ..... .96
Somerset, Ky. (May 20, 1935)..... 1.13
Western Kentucky (May 22, 1935)..... 1.13

*Posted by Pure Oil Co., Simrall Pipe Line Co. Ogemaw and West Branch, Mich., posted by Simrall Pipe Line Co., Somerset, Ky., crude purchased by Ashland Refining Co., Ashland, Ky., and posted prices includes premium. Oceana posted by Old Dutch Refining Co. and Naph-Sol Refining Co.

North Louisiana and Arkansas

Smackover, Ark. (all grades) ..... $ .70
Tullos, Urania, La. (Jan. 13, 1934).... .87
Nevada, Ark. (Sept. 29, 1933)..... .60
East El Dorado (Sept. 29, 1933)..... .70
Converse, La. (Mar. 17, 1934)..... 1.03
Elm Grove, La. (Sept. 29, 1933)..... .75
Holly, La. (Nov. 17, 1934)..... 1.02
Pleasant Hill, La. (Mar. 17, 1934)... 1.03
Zwolle, La. (Mar. 17, 1934) 1.03
Champagnolle, Ark. (Mar. 17, 1934).... .81
Lisbon, Ark. (Mar. 17, 1934)..... 1.03
Stephens, Ark. (Sept. 29, 1933)..... .70
Urbana, Ark. (Mar. 17, 1934)..... .60
Other fields .....(See gravity table)

South Central and Southwest Texas

Darst Creek ..... $ .87
Mirando (June 29, 1935) ..... .75
Luling (Sept. 29, 1933) ..... .75
Pettus 1.05
Salt Flat ..... .87
Lytton Springs (Sept. 29, 1933)..... .95
Duval County (June 29, 1935) ..... .75
Saxet (June 29, 1935) ..... .80
Port Lavaca (July 1, 1935) ..... .80

Eastern States

TIDE WATER PIPE CO.
(Effective Nov. 20, 1935)

Bradford, Pa. $2.30
Allegany, N. Y. 2.30

SOUTH PENN OIL CO.
(Effective Nov. 20, 1935)

Pennsylvania Grade Oil in National Transit Lines (Bradford field) $2.30
Pennsylvania Grade Oil in Southwest Pennsylvania Lines 2.02
Pennsylvania Grade Oil in Eureka Pipe Line lines 1.97
Pennsylvania Grade Oil in Buckeye Pipe Line lines 1.82
Corning Grade Oil in Buckeye Pipe Line Co.'s lines 1.32

PENNZOIL CO.
(Effective Nov. 20, 1935)

Pennsylvania Grade Oil in National Transit Lines:
Group A $2.27
Includes Cochran, Franklin, Hamilton and Doolittle districts.
Group B 2.26
Includes Titusville district.
Group C 2.25
Includes Turkey and Tidioute districts.
Group D 2.24
Includes Bear Creek and Porkey districts.
Group E 2.21
Includes Edeneau, Bull Creek, Rough Run, Carbon, Dipner, Bredlin, McJunkin, Jameson, Kenerdell, Emlenton, Tiona, Lacey and Kinzua districts.
Price depends on length of pipe line haul to plant at Oil City.

PURE OIL CO.
(Effective Nov. 20, 1935)

Cabin Creek, W. Va. $1.97
Bradford Hollow, W. Va. 1.97
Kelly Creek, W. Va. 1.97

Canada

Ontario (Sept. 9, 1933):
Petrolia* $2.10
Oil Springs 2.17
Turner Valley (May 21, 1934):†
Clear naphtha 2.55
Discolored naphtha 2.37
Crude oil, 50 gravity 2.19
Crude oil, 45 to 49.9 ..... 2.07
Crude oil, 40 to 44.9 ..... 1.50

*Imperial Oil, Ltd. †Imperial Oil, Ltd., and Regal Oil & Refining Co.

Mexico

Panuco* ..... $ .85

*F.o.b. ship, based on October transactions and exclusive of production and export taxes and bar dues.

Crude Prices by Gravities

Gravity—	Oklahoma and Kansas	North Texas, Central Texas and East Central Texas	North Louisiana and Arkansas	Gray County, Texas	Carson, Hutchinson and Moore Counties, Texas	Conroe, Texas	Salt Creek, Wyo.	Gulf Coast, Texas and Louisiana	Gulf Coast, Texas and Louisiana	Cotton Valley, Louisiana
	1	2	3	4	5	6	7	8	9	10
Below 20	....	....	....	....	....	....	....	$ .82	$ .82	....
20-20.9	....	....	....	....	....	....	....	.84	.84	....
21-21.9	....	....	....	....	....	....	....	.86	.86	....
22-22.9	....	....	....	....	....	....	....	.88	.88	....
23-23.9	....	....	....	....	....	....	....	.90	.90	....
24-24.9	....	....	....	....	....	....	....	.92	.92	....
Below 25	*$ .76	....	....	....	....	....	....	....	....	$ .70
25-25.9	* .78	....	....	....	....	....	....	.94	.94	.72
26-26.9	* .80	....	....	....	....	....	....	.96	.96	.74
27-27.9	* .82	....	....	....	....	....	....	.98	.98	.76
28-28.9	* .84	....	....	....	....	....	....	1.00	1.00	.78
Below 29	.84	$ .79	$ .79	....	....	....	$ .84	....	....	....
29-29.9	.86	.81	.81	....	....	....	.86	1.02	1.02	.80
30-30.9	.88	.83	.83	....	....	....	.88	1.04	1.04	.82
31-31.9	.90	.85	.85	....	....	....	.90	1.06	1.05	.84
32-32.9	.92	.87	.87	....	....	....	.92	1.08	1.06	.86
33-33.9	.94	.89	.89	....	....	....	.94	1.10	1.07	.88
34-34.9	.96	.91	.91	....	....	....	.96	1.12	1.08	.90
Below 35	....	....	....	$ .79	$ .69	....	....	....	....	....
35-35.9	.98	.93	.93	.81	.71	$1.09	.98	1.12	1.09	.92
36-36.9	1.00	.95	.95	.83	.73	1.11	1.00	1.12	1.10	.94
37-37.9	1.02	.97	.97	.85	.75	1.13	1.02	1.13	1.11	.96
38-38.9	1.04	.99	.99	.87	.77	1.15	1.04	1.12	1.12	.98
39-39.9	1.06	1.01	1.01	.89	.79	1.17	1.06	1.12	1.13	1.00
40 and over	1.08	1.03	1.03	.91	.81	1.19	1.08	1.12	1.14	1.02

Lower Rates Refused

WASHINGTON, D. C., Dec. 2.— The Interstate Commerce Commission has rejected a plea by Colorado petroleum companies that freight rates on refined petroleum products in car loads, from points in Kansas, Oklahoma and Texas be reduced.

The commission held that existing rates were not unreasonable, and dismissed the complaint filed by the Ace Petroleum Co. and several others against the railroads.

The complaints compared rates from Wyoming points to justify their contention for reduced shipping costs. The commission held, however, that existing rates conformed with custom on petroleum shipments throughout the area, and that the evidence did not warrant the proposed cut.

STANDARD OIL CO. OF CALIFORNIA

Effective November 1, 1935, and met by all other purchasers. (Ventura Avenue posted by Associated Oil Co.; Shiells Canyon and South Mountain by The Texas Co. and Rincon by General Petroleum Corp.) All gravities above those posted take highest posted price in the field.

Gravity—	Signal Hill	Seal Beach, Alamitos Heights	Huntington Beach	Inglewood	Playa Del Rey	Olinda-Brea Canon	Athens, Rosecrans Domingues	Elwood Terrace	Torrance	Richfield	Kettleman Hills	Whittier, La Habra	Montebello	Coyote Hills	Santa Fe Springs	Newhall, McKittrick, Kern River	Mountain View	Midway-Sunset, Elk Hills, Buena Vista Hills	Lost Hills	Ccalinga	Wheeler Ridge	Ventura Avenue	Shiells Canyon, South Mountain	Rincon
14-14.9	$ .75	$ .74	$ .73	$ .74	$ .75	$ .71	....	....	$ .75	$ .71	....	$ .71	$ .72	$ .72	....	$ .65	....	$ .65	$ .65	$ .65	....	....	$ .65	....
15-15.9	.75	.74	.73	.74	.75	.71	....	....	.75	.71	....	.71	.72	.72	....	.65	....	.65	.65	.65	....	....	.65	....
16-16.9	.75	.74	.73	.74	.75	.71	....	....	.75	.71	....	.71	.72	.72	....	.65	....	.65	.65	.65	....	....	.65	....
17-17.9	.75	.74	.73	.74	.75	.71	....	....	.75	.71	....	.71	.72	.72	....	.65	....	.65	.65	.65	....	....	.65	....
18-18.9	.75	.74	.73	.74	.75	.71	....	....	.75	.71	....	.71	.72	.72	....	.65	....	.65	.65	.65	....	....	.65	....
19-19.9	.75	.74	.73	.74	.75	.71	....	....	.75	.71	....	.71	.72	.72	....	.65	$ .65	.65	.65	.65	$ .65	....	.65	....
20-20.9	.75	.74	.73	.74	.75	.71	....	....	.75	.71	....	.71	.72	.72	....	....	.65	.65	.65	.65	.65	....	.66	....
21-21.9	.75	.74	.73	.74	.76	.71	....	....	.75	.71	....	.71	.72	.72	$ .73	....	.65	.66	.67	.65	.65	....	.67	....
22-22.9	.75	.74	.73	.75	.78	.72	....	....	.75	.71	....	.71	.72	.72	.73	....	.65	.67	.68	.66	.65	$ .68	.68	$ .64
23-23.9	.75	.74	.74	.76	.79	.73	$ .75	....	.76	.71	....	.72	.73	.72	.73	....	.65	.69	.70	.67	.65	.68	.69	.64
24-24.9	.77	.74	.75	.77	.81	.74	.76	....	.77	.72	....	.74	.74	.73	.73	....	.65	.71	.71	.69	.65	.70	.70	.66
25-25.9	.78	.76	.76	.78	.82	.75	.76	....	.78	.73	....	....	.75	.74	.73	....	.66	.72	.73	.70	.66	.71	.71	.67
26-26.9	.79	.78	.78	.79	.83	.76	.77	....	.79	.74	....	....	.76	.75	.73	....	.67	.74	.74	....	....	.73	.73	.68
27-27.9	.80	.78	.79	.80	....	.77	.79	....	....	.75	....	....	....	.77	.74	....	.68	.76	.76	....	....	.73	.73	.69
28-28.9	.81	.79	.80	.81	....	.79	.80	....	....	.76	....	....	....	.78	.75	....	.70	.77	.77	....	....	.74	.74	.70
29-29.9	.82	.81	.81	.82	....	....	.82	....	....	.78	....	....	....	.79	.77	....	.71	.79	.78	....	....	.75	.75	.71
30-30.9	.83	.83	.82	.83	....	....	.83	....	....	....	....	....	....	.80	.78	....	.72	.81	.80	....	....	.76	.76	.72
31-31.9	....	....	....	.84	....	....	.84	....	....	....	....	....	....	.81	.79	....	.74	.83	....	....	....	....	.77	....
32-32.9	....	....	.85	....	....	....	.86	....	....	....	....	....	....	.82	.81	....	.75	.84	....	....	....	....	.78	....
33-33.9	....	....	....	....	....	....	....	$ .84	....	....	$ .81	....	....	.83	.82	....	.76	.86	....	....	....	....	.79	....
34-34.9	....	....	....	....	....	....	....	.85	....	....	.83	....	....	.85	.83	....	.77	....	....	....	....	....	.80	....
35-35.9	....	....	....	....	....	....	....	.86	....	....	.84	....	....	....	.85	....	....	....	....	....	....	....	.82	....
36-36.9	....	....	....	....	....	....	....	.88	....	....	.86	....	....	....	.86	....	....	....	....	....	....	....	.83	....
37-37.9	....	....	....	....	....	....	....	.89	....	....	.87	....	....	....	.87	....	....	....	....	....	....	....	.84	....
38-38.9	....	....	....	....	....	....	....	....	....	....	.88	....	....	....	.89	....	....	....	....	....	....	....	....	....
39-39.9	....	....	....	....	....	....	....	....	....	....	.90	....	....	....	....	....	....	....	....	....	....	....	....	....

Playa Del Rey prices f.o.b. their pipe line. Elwood Terrace prices f.o.b. ship. All purchasing companies met the above prices.

Market Record of Active Oil Stocks Listed on New York Stock Exchange

Compiled by Carl H. Pforzheimer Co., 25 Broad Street, New York City, Members New York Stock Exchange and New York Curb Exchange

1935 High	1935 Low	Week ended Nov. 30 Sales	Week ended Nov. 30 High	Week ended Nov. 30 Low	Week ended Nov. 30 Close	Stocks—	Total shares outstanding	Par value	Dividend rate	Payable or last paid	Dividends Paid in 1934	1934 High	1934 Low	1933 High	1933 Low
77¾	48½	3,000	74⅛	70½	70½	Amerada Corp.	788,675	N.P.	50cQ	10-31-35	$2.00	55⅝	39	47⅝	18½
28	20½	11,700	24⅞	23	23⅝	Atlantic Refining	2,664,904	$25	25cQ	12-16-35	1.00	35¼	21½	32½	12¾
13¼	11½	39,100	13¼	12	12⅛	Barnsdall Corp. A	2,195,397	$5	15cQ†	2-1-36	....	10	5⅞	11	3
15¾	3⅜	38,100	14⅝	13	13¼	Columbia Gas & Elec.	11,610,036	N.P.	20c	11-15-35	‡ .25	19¼	6⅝	28⅛	9
10½	6½	118,100	10½	9¾	10¼	Consolidated Oil Corp.	13,996,072	N.P.	14c	10-31-34	.42	14¼	7¼	15¾	5
28¾	15⅛	29,500	28¼	26¼	27⅝	Continental Oil of Delaware	4,682,722	$5	25c	10-31-35	.50	22¾	15¾	19⅝	4⅞
22½	19¾	7,000	21¼	20⅛	20⅜	General Asphalt	387,149	$10	25c	12-17-35	....	23½	12	27	4⅝
7	1½	89,400	7	6	6⅛	Houston Oil (new)	1,098,618	$25	....	10-17-30	....	5⅝	2½	7⅜	1⅞
1⅞	⅜	10,900	1¼	1⅛	1⅛	Louisiana Oil Refining	1,302,158	N.P.	....	.....	....	3⅜	⅜	4	⅝
17	9½	10,100	16⅞	15¾	15⅞	Mid-Continent Petroleum	1,857,912	$10	25c	12-2-35	.50	14¾	9⅛	16	3¾
20⅞	9	4,900	19⅞	17½	19¼	National Supply of Delaware	382,591	$25	....	5-15-31	....	21⅛	10	28⅝	4
14⅛	9¼	25,200	11¾	10⅞	11	Ohio Oil Co.	6,563,377	N.P.	15cSA	12-14-35	.45	15⅞	8½	17⅝	4¾
11⅜	6¾	8,700	10⅛	9½	9½	Pacific Western Oil	1,000,000	N.P.	40c	11-30-34	.40	9¾	5½	9½	3
1½	½	3,800	1¾	1¼	1⅜	Panhandle P. & R.	198,770	N.P.	....	.....	....	2½	⅝	4¼	⅜
37⅝	13¾	34,400	36	33½	33⅞	Phillips Petroleum	4,154,687	N.P.	25c†	11-30-35	1.00	20¾	13⅜	18¾	4¾
12¼	6½	3,500	12	11	11⅛	Plymouth Oil Co.	1,050,000	$5	25c	3-30-35	75c & 4% Stk.	16¾	7¼	17⅝	6¾
13¼	5⅞	29,900	13¼	12⅛	12½	Pure Oil Co.	3,038,370	N.P.	....	9-1-30	....	14⅞	6⅛	15⅜	2½
48⅜	29½	600	48⅜	48⅜	48⅜	Royal Dutch N. Y. shares	fl. 503,642,000	fl. 100	$1.70	8-1-35	1.35	39⅛	28⅝	39¾	17⅝
35⅞	20¾	4,100	31⅞	30	30¼	Seaboard Oil of Delaware	1,244,283	N.P.	15cQ†	12-14-35	1.00	38⅜	20¾	43⅜	15
15	5½	24,200	15	13⅝	13⅞	Shell Union Oil	13,070,625	N.P.	....	6-30-30	....	11½	6	11⅝	4
111	63⅛	900	108½	105½	106	Shell Union Oil pfd.	400,000	$100	....	7-1-31	....	89	57	61	28½
18¾	4¾	11,800	5⅛	5	5	Simms Petroleum	461,688	$10	1.25 liq.	10-18-35	.55	17⅛	7¼	12⅜	4⅞
17	6½	3,000	16¾	15½	15¾	Skelly Oil	1,008,514	$25	....	12-15-30	....	11½	6	9⅞	3
15¾	10⅝	60,300	13¼	12½	12¾	Socony-Vacuum	31,154,379	$25	15cQ	9-16-35	.60	19⅞	12½	17	6
38⅞	27¾	19,900	37¾	36½	36⅝	Standard Oil of California	13,102,900	N.P.	25c	12-15-35	1.00	42⅞	26½	45	19½
28¾	23	18,100	28⅛	26½	26½	Standard Oil (Indiana)	15,215,677	$25	25cQ	12-16-35	1.00	32¾	23¼	34	17
32	20	100	27¾	27¾	27¾	Standard Oil of Kansas	200,000	$10	50cQ	10-31-34	2.00	41	26	39⅞	12¾
50½	35¾	23,200	49⅝	47½	48¼	Standard Oil of New Jersey	25,856,081	$25	50cSA†‖	12-16-35	1.25	50⅛	39¼	47½	22¾
77	60½	2,400	72½	71	72½	Sun Oil	1,733,013	N.P.	25c¶	12-16-35	$1 & 9% Stk.	74¼	51½	59	35
25⅛	16½	23,600	25	23⅝	24½	Texas Corp.	9,486,417	$25	25cQ	1-1-36	1.00	29⅜	19⅝	30⅛	10¾
9¼	3¼	29,300	9	7⅝	8⅞	Texas Pacific Coal & Oil	880,703	$10	....	12-31-29	....	6½	2½	6½	1⅝
12⅜	7⅝	15,500	12¼	11⅛	11¼	Tide Water Associated	5,632,136	N.P.	....	2-16-31	....	14⅜	8	11¾	3½
104½	84	900	103½	102	102	Tide Water Associated pfd.	626,222	$100	$1.50Q	10-1-35	§8.50	87	64½	65¼	23½
21	14¾	4,300	20½	20	20	Union Oil of California	4,386,070	$25	25cQ	11-9-35	1.00	20½	11½	23⅜	8½
26½	20⅞	900	23⅜	22¼	22¼	Union Tank Car Co.	1,200,000	N.P.	30cQ	12-2-35	1.20	25¾	15⅝	22¾	10½
2⅝	1	5,300	2⅞	2¼	2¼	Wilcox Oil & Gas	424,839	$5	....	5-10-28	....	5¾	2	5½	2

*Ex-dividend. †Plus extras. ‡Payable in preferred stock. §On account of accumulation. ‖Dividend 4/75 Mission Corp. paid 3-15-35. ¶and 7 per cent stock.

Market Record of Active Oil Stocks Listed on New York Curb

Compiled by Carl H. Pforzheimer Co., 25 Broad Street, New York City, Members New York Stock Exchange and New York Curb Exchange

1935 High	1935 Low	Week ended Nov. 30 Sales	Week ended Nov. 30 High	Week ended Nov. 30 Low	Week ended Nov. 30 Close	Stocks—	Total shares outstanding	Par value	Dividend rate	Payable or last paid	Dividends Paid in 1934	1934 High	1934 Low	1933 High	1933 Low
42½	30½	250	41	40½	40½	Buckeye Pipe Line Co.	200,000	$50	75cQ	12-14-35	$3.00	38	26	29¾	25
4¼	1⅝	19,300	3⅞	3	3⅛	Carib Syndicate	799,020	25c	....	.....	....	5½	1½	7¾	¼
157	115	50	125½	125½	125½	Chesebrough Mfg. Co.	120,000	$25	$1Q†	12-27-35	11.50	150	116	129	71
3¼	¾	51,700	2⅞	2½	2⅝	Cities Service	37,804,394	N.P.	....	6-1-32	....	4¼	1¼	6¼	1½
2⅛	½	4,000	1	⅛	⅛	Colon Oil	2,200,000	N.P.	....	.....	....	3¼	½	4	¼
⅞	¼	5,900	⅝	1/16	1/16	Cosden Oil	399,687	$1	....	.....	....	3⅞	½	3⅞	1⅜
23¾	10	34,300	23¾	22	24¼	Creole Petroleum	6,974,356	$5	....	.....	....	14⅜	9⅝	12	4¾
6⅞	4	200	6½	6½	6½	Darby Petroleum	509,696	$5	25c	7-15-35	.50	7½	4½	8	2½
2	¾	500	1¾	1⅝	1⅝	Derby Oil & Refining	263,162	N.P.	....	.....	....	2¼	1	2¾	⅞
38	34	50	37	37	37	Eureka Pipe Line	50,000	$50	$1Q	8-1-35	4.00	37	30	41¾	20
74¾	50¼	14,000	70	66	69½	Gulf Oil Corp.	4,538,101	$25	....	10-1-31	....	76¾	49¾	62	24
64	44	7,100	60¾	57	58½	Humble Oil & Refining (new)	8,923,935	N.P.	25cQ	10-1-35	§1.25	49½	33¼	105½	40
22½	15⅜	11,000	21	19⅞	19⅞	Imperial Oil of Canada	26,919,871	N.P.	62½cSA†‡	12-2-35	.92½	17⅞	12⅝	15⅞	6½
6⅛	3⅝	100	6	6	6	Indiana Pipe Line	300,000	$10	15cSA†	11-15-35	.35	6⅞	3⅝	8	3⅛
39¾	28	11,100	37⅛	34⅛	34⅝	International Petroleum	14,247,088	N.P.	$1.25†‡	12-2-35	2.28	33⅜	19⅜	23½	8⅞
9½	4⅜	11,400	9½	9¼	9½	Louisiana Land & Exp.	3,000,000	N.P.	....	.....	....	5	2⅛	2¼	1/16
7¼	3½	300	7	6½	6½	Lion Oil Refining	270,000	N.P.	....	10-27-30	....	6	3⅜	9½	1¼
10⅞	4½	3,000	10	9	9½	Lone Star Gas	5,382,723	N.P.	15cSA	8-15-35	‖ .16	8⅜	4¼	11⅞	4¾
5½	4⅛	1,400	5	5	5	Mountain Producers	1,682,182	$10	15cQ	10-1-35	.60	5½	4	6½	2½
20	11⅜	9,300	19¼	17⅞	19¼	National Fuel Gas	3,810,183	N.P.	25cQ†	12-21-35	1.00	18⅛	13⅛	20	10
10½	6¾	200	9¼	9¼	9¼	National Transit	509,000	$12.50	35cSA	12-16-35	.75	9½	7	10	5½
3¼	2	700	2⅞	2⅝	2⅞	New Bradford Oil	1,445,202	$5	10cSA	9-16-35	.20	2½	1¾	2⅛	½
2⅛	1	100	1⅝	1⅝	1⅝	New Mexico and Arizona	1,000,000	$1	....	.....	....	2¾	1	1⅞	½
4⅞	3	600	4½	4⅜	4½	New York Transit	100,000	$5	15cSA	4-15-35	.30	4¾	3	4⅞	3
8	5¼	300	7⅞	7½	7⅞	Northern Pipe Line	120,000	$10	25cSA	2-2-36	.50	7	4⅝	6⅛	4¼
3½	1¼	14,700	3¼	3	3¼	Pantepec Oil	1,608,700	N.P.	....	.....	....	2⅝	⅞	3¾	½
1½	⅝	300	1⅛	1	1	Ryan Consolidated	296,931	N.P.	....	.....	....	3⅜	⅞	4¼	⅝
7½	5½	1,100	6¾	6⅜	6½	Salt Creek Producers	1,496,859	$10	20cQ	11-1-35	.80	7⅞	5½	9¼	3½
30¼	21⅝	3,100	30¼	28⅜	29⅞	South Penn Oil	1,200,000	$25	30cQ	9-30-35	1.20	26½	17½	22⅛	11
5	3⅞	No sales ..	..	..	..	Southern Pipe Line	100,000	$10	15cSA	9-3-35	.25	5½	3½	6	2⅛
52½	44¼	100	49	48	49	Southwest Penna. Pipe Lines	35,000	$50	$1Q†	12-31-35	5.00	47	41	43	24½
24	18	1,800	22	21⅝	21⅝	Standard Oil of Kentucky	2,604,790	$10	25cQ†	12-14-35	1.50	18⅜	14⅝	19¼	8⅝
12	7¾	400	11¼	11	11¼	Standard Oil of Nebraska	188,403	$25	....	6-20-34	.50	16⅞	8¼	20½	11
23⅜	11½	1,500	21¾	20¼	20¾	Standard Oil of Ohio	753,740	$25	....	1-3-33	....	28½	12¼	41	15½
2¾	⅞	9,500	2⅝	2¾	2⅜	Sunray Oil	1,610,810	$1	....	4-15-31	....	2	1/16	1½	¼
6⅞	5	700	6	6	6	Texon Oil & Land	336,028	N.P.	15cQ	9-30-35	.90	11	4⅜	13¾	6¼

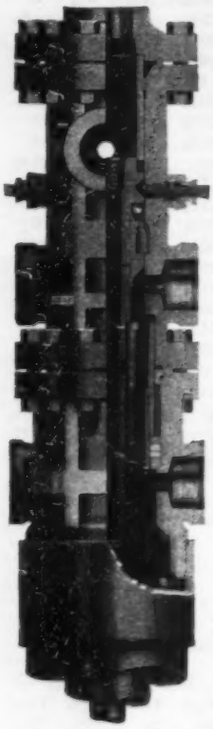
*Ex-dividend. †Includes extras. ‡Payable in Canadian funds. §Includes 50 cents on old $25 par value stock. ‖Payable in preferred stock.

Note.—In comparing highs and lows for the several years in the two tables, it will be necessary to take into consideration cases where there have been stock split-ups.

NEW OR IMPROVED EQUIPMENT

New Combination Appliance Placed on Market by OCT

Oil Center Tool Co., Houston, Tex., is on the market with a new tubing-head-bradenhead combination which enables the operator to flange the complete christmas-tree assembly directly onto the bradenhead, avoiding the use of nipples between the oil string of casing and the surface hookup.



The equipment in this combination is the type AS streamline tubing-head and the new OCT type C-3 bradenhead. Through its use the christmas-tree can be flanged on top of the bradenhead, and the blowout preventer equipment flanged on top of the entire christmas-tree before drilling the plug. Thus can the operator drill in, run and land tubing in the christmas-tree body before removing blowout preventer equipment.

Type C-3 bradenhead is built to screw into the surface casing collar. The tubinghead is flanged on top to accommodate any make of blowout preventer through the use of OCT adapters. The combination, according to the manufacturer, makes a positive seal around the oil string of casing, since the bradenhead furnishes a double packoff, one set of packing sealing around the casing and the other sealing around the casing collar, as shown in the accompanying illustration. The combination eliminates threads between the bradenhead, the oil string and the christmas-tree. While the illustration here shows a design for male thread valves, this hookup is made for use with any manufacturer's valves. The new combination is furnished by the company in test pressures up to 6,000 pounds.

Here and There With Men Who Manufacture Equipment

Appointment of Otto de Lorenzi as assistant general sales manager of Combustion Engineering Co., Inc., New York, has been announced.

Leonard H. West, for three years district manager for Lucey Products Corp., in East Texas, with headquarters in Tyler, has been transferred to the company's Tulsa office.

The Lacy Co., Houston, Tex., manufacturer of the Lacy Turbolite, Lacy Turbo generator and Lacy Bug Fan, has appointed W-K-M Co. as domestic and foreign distributor through supply stores.

The Medart Power Transmission Machinery Co. has appointed A. A. Hollander district sales representative in the New York trade area, with offices at 1265 Broadway.

Changes in its sales organization announced by the Lincoln Electric Co., Cleveland, Ohio, include new offices in Peoria, Ill., with W. I. Miskoe as manager, and Memphis, Tenn., O. B. Farrell, manager. Lew Hinchman has been assigned to the Chicago district sales office, Paul M. Corp to the Milwaukee office and E. H. Weil to the San Francisco office.

Four Wheel Drive Auto Co., Clintonville, Wis., has appointed H. M. Daniels supervisor of the new consolidated eastern sales division and A. F. Waterland manager of the newly established Philadelphia branch.

S. C. Kenyon has joined the sales staff of Pittsburgh Equitable Meter Co., representing that company and its subsidiary, Merco Nordstrom Valve Co. His territory will include all of Ohio. He will work out of the Pittsburgh, Pa., district office and will reside in Columbus, Ohio.

R. H. Gardner, formerly division manager of the Washington, D. C., office of A. M. Byers Co., has been transferred to Pittsburgh as manager of steel pipe sales. E. L. MacWhorter, formerly manager of the company's Philadelphia division, has been placed in charge of the Washington division.

Men Widely Known in the Equipment Field

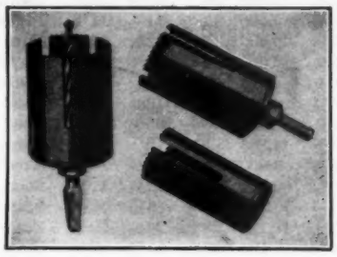
Crane Co., Chicago, has appointed H. H. Simmons as advertising manager. Along with other aids to selling, he will develop the advertising service so that it can be fitted into the general sales promotional program. To take up his new post, Mr. Simmons terminated a nine-year association with Russell T. Gray, Inc., Chicago advertising agency, of which he was vice president and account executive.

H. H. SIMMONS

After graduating from the University of Illinois in civil engineering, Mr. Simmons spent several years in the trade publication field. Among the markets which he has had opportunity to study intensively are power plant, oil and gas, railroad, chemical and construction.

Starbuck Saw Cuts Pipe-Holes Through Floor or Ceiling

The Starbuck rotary pipe-hole saw, developed by R. M. Starbuck & Sons, Inc., Hartford, Conn., is made for the single purpose of cutting holes for pipes through wooden floors, ceilings and partitions. Pipe fitters generally have been accustomed to use crude methods in cutting pipe holes.



The pipe hole saw will cut through nails or metal ceilings without injury to the tool. Destruction of expansive bits, auger bits and other edged tools in striking nails, has been a source of expense and annoyance. Notwithstanding the extreme toughness of these saws, they may be easily resharpened with a file.

The secret of the successful operation of this saw is in the long narrow slots which are seen in each cutter. The slots provide an escape for the sawdust as fast as it accumulates. Without this feature, sawdust would pile up on top of the teeth of the cutter, and soon stall the tool. The cutters are made of sufficient length to go through three thicknesses of flooring.

Field Demonstration Service Is Launched by Mason-Neilan

A field demonstration service, expected to be of particular value to industries in which instrumentation and control are problems, has been put into operation by Mason-Neilan Regulator Co., Boston, Mass. The new service unit, a specially designed truck, equipped with modern reducing valves and control instruments, is making a nationwide tour, giving demonstrations in important refineries, chemical plants, process and power plants. Plant executives, process men, power plant engineers and instrument men can get first-hand information on developments in temperature, pressure and flow control.

The demonstrations are under the supervision of a control engineer who discusses problems, answers questions, and gives ideas on cutting maintenance costs. The unit is offered as a free service, no matter where it goes. New York, Philadelphia, Pittsburgh, Toledo, Chicago, St. Louis, Tulsa and Houston are some of the larger cities in the itinerary announced by the company.

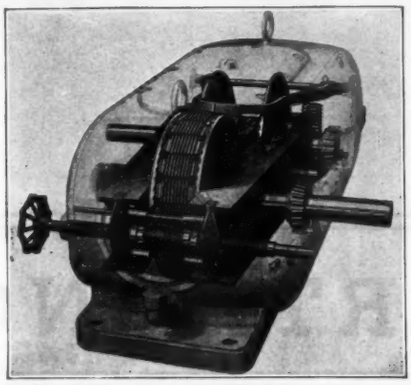
"Realwear" Welding Cable

A new type of welding cable designed to meet conditions of severe wear and abrasion is announced by the Lincoln Electric Co., Cleveland, Ohio. "Realwear" cable consists of fine tinned copper wire laid in ropes and stranded. Individual ropes are alternated in succession as regards the direction of the lay to prevent distortion in applications of severe usage. The conductor cable is insulated with a specially developed rubber compound to provide firm adhesion between the cover and rubber insulation. High-grade cotton joined to the rubber belt by a special process forms the

cover, which is provided with a finish resistant to oil, grease, acid, gasoline, moisture and heat. Tests of the wearing quality of this cable have shown it unusually resistant to abrasive action.

Greater Range and Flexibility of Application Are Offered

Link-Belt Co., Chicago, in order to offer greater range and flexibility of application has incorporated certain features of design in its P.I.V. gear variable-speed transmission, which will permit the entire line to be furnished in the follow-



ing combinations and sizes: (1) Motorized (when desired), with motor forming an integral part of the unit; (2) with or without speed-reduction gearing; (3) with horizontal or vertical box, and (4) in five sizes up to 15 horsepower capacity.

Previously P.I.V.'s were available in sizes up to 10 horsepower, with horizontal box only, and without reduction gear sets or the integral-motor feature. The motorized construction is said to make a compact drive, eliminating the need of a separate motor-baseplate.

The operating principle of the basic unit remains the same as when introduced six years ago.

Handbook on Alloy Steels

"Bethlehem Alloy Steels," is announced by Bethlehem Steel Co., Bethlehem, Pa., as an illustrated, indexed handbook, whose 376 pages span the history of modern alloy steels. It is devoted exclusively to alloy and special steels in the form of bars, billets, blooms and slabs. The purpose is to give users of alloy steels dependable working data on properties and performance and to bring existing data up to date in one volume.

Bulletins, Booklets and Other Literature for the Trade

J&L Integral-Joint Blue Ribbon drill pipe is the subject of an illustrated 8-page booklet which may be obtained from Jones & Laughlin Steel Corp., Pittsburgh, Pa.

Air-Maze Corp., Cleveland, Ohio, manufacturer of air filters, has appointed A. D. Barr to represent it in Texas, Oklahoma and Kansas. Mr. Barr's headquarters will be the Bliss Hotel, Tulsa.

Aluminum Industries, Inc., of Cincinnati. Ohio, manufacturer of Permite products, has opened an office in Suite 1004, Petroleum Building, 616 South Michigan Ave., Chicago.

A technical bulletin on chlorinated hydrocarbons, listing their characteristics, properties, specifications and other useful information, has been released by the R. & H. chemicals department of E. I. du Pont de Nemours & Co., Wilmington, Del.

Four bulletins available from Worthington Pump & Machinery Corp., Harrison, N. J., are on Worthington pneumatic tools (clay spade, trench digger, backfill tamper); single horizontal, single-stage steam- and motor-driven compressors; Monobloc open-impeller centrifugal pumps; horizontal duplex power pumps for the petroleum industry.

J. I. Case Co. has opened an office in Dallas, Tex., at 311 North Austin Street, in charge of Lee Delf, district representative.

A profusely illustrated booklet released by the Linde Air Products Co., 30 East Forty-second Street, New York, is a consolidation and orderly arrangement of facts regarding the repair of cast iron machinery by the oxyacetylene process.

A 16-page booklet released by Republic Steel Corp., Massillon, Ohio, describe the tubular products made by that company and its subsidiary, Steel & Tubes, Inc. "The Greatest Pipe Show on Earth" is the name of it.

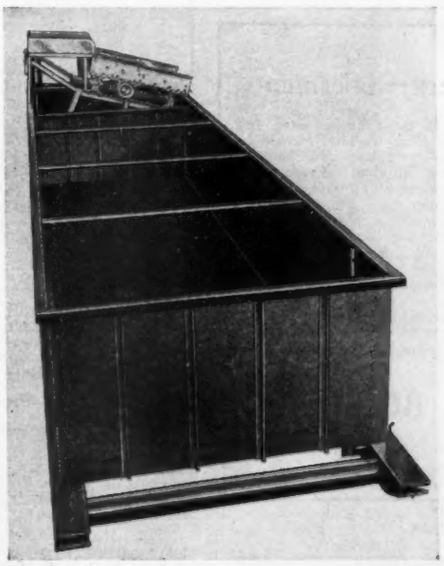
Protectomotor air filters for gasoline engines, air-compressors, pumps, electric motors, diesel engines, etc., and for pipe line filtration are described in a bulletin issued by Staynew Filter Corp., 25 Leighton Avenue, Rochester, N. Y.

Cooper-Bessemer Corp., Mount Vernon, Ohio, is mailing on request a bulletin describing and illustrating the company's type GX3A single-stage combined engine and compressor, driven by either gas or gasoline engine.

Jon R. Long, Fort Worth, Tex., successor to Oil Field Engineering Corp. and Petroleum Equipment Co., has issued a new 1935-36 catalog of 58 pages describing and illustrating the pumping and gas-lift production equipment manufactured.

Slushpit Is Easily and Quickly Moved About in Oil Field

In line with the trend toward more compact drilling installations and more economical drilling methods, Carson Machine & Supply Co., Box 1093, Oklahoma City, has developed a portable slushpit



which can be quickly and easily moved from one location to another.

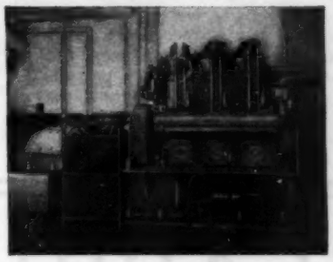
Advantages enumerated by the company are: (1) Eliminates digging and covering up of slushpits at each location; (2) makes possible big savings where commercial muds are used; (3) eliminates the necessity of changing to cable tools when drilling in producing sand because accurate readings of formations are available at all times.

This pit, which is ruggedly constructed and electrically welded throughout, is mounted on heavy H-beam skids. A Keil vibrating screen is mounted on one end to allow the mud to run through it into the tank, while the gas escapes and the cuttings are screened out.

Chicago Pneumatic Introduces Convertible Diesel Engine

A new line of diesel engines, modern in design and embodying late injection improvements, is announced by Chicago Pneumatic Tool Co. Built in sizes ranging from 100 to 300 horsepower, these engines have features making them adaptable for long, continuous, or automatic service where reliability and low operating costs are important.

The RHB diesel is a four cycle engine in which direct, solid injection is used, a system which utilizes timed injection by means of individual pumps, one for each cylinder. Pressure lubrication to all bearings assures a positive and controlled supply of oil. The "full diesel" is of the



high-compression type which result in reliable operation at light loads enabling easy, quick, "cold starting"; and the unit is convertible to a gas engine if desired, with a few minor changes. Any fuel gas commercially obtainable can be used.

Pistons, liners, and heads are made of a special nickel cast iron, normalized before machining. Liners and pistons are accurately ground to close tolerances. Valves are of silcrome steel for both inlet and exhaust. Piston pins are of the full-floating type, case-hardened and ground. Small pins, cams and similar parts are also case-hardened and ground. Special machine tools, jigs and fixtures together with rigid inspection make all parts interchangeable.

The engine can be adapted to practically any type of driven machinery, generators, centrifugal and reciprocating pumps, compressors, etc.

Tom Thumb Machines Improved

Oster-Williams, Cleveland, Ohio, announce improved models of the Nos. 512 and 521 Tom Thumb pipe and bolt machines, both of which are now equipped with a flared base for greater rigidity and protection against threading oil loss. The No. 512 is now built with a rack-and-pinion feed for the die head carriage as well as a thread length indicator which enables the operator to determine the exact length of thread to be cut without looking into the die head. The No. 521, recommended for bolt threading of the smaller sizes up to 1¼ inches, has an outboard support for its vise carriage ways to give rigidity and it also has a rack-and-pinion feed for the carriage.

Impervious Films Produced

Technical Coatings, Inc., 11 Park Place, New York, is producing a line of new coatings in which the films formed are said to be free from porosity and impervious to water and corrosive atmospheric gases. This vehicle is described as a combination of pure vegetable gums and heat-treated oils. It contains no linseed oil or synthetic resins. It forms films which are air-tight, water-tight, elastic and which produce hard films that are said not to peel, chip, or crack.

Detachable Socket Wrenches

Armstrong Brothers Tool Co., Chicago, announces a complete line of chrome-vanadium steel sockets for detachable head socket wrenches. These new sockets come in all sizes and types from the tiny five-thirty-seconds inch miniatures for fine electrical work to the 2½-inch extra heavy duty sockets. Included in this new line are both double-hex (12-point) and double square (8-point) sockets, sockets for miniature, light, standard, heavy duty and extra heavy duty drivers; and handles, extensions and ratchets.

Chicago Market

CHICAGO, Dec. 2.—Continued irregularity in the tank car gasoline market is noted here, following fractional price recessions of the last two weeks. Nevertheless, at these reduced prices tone seems perhaps a shade firmer than recently. Offerings are still being received by jobbers and carlot marketers, but amounts involved seem to be rather limited.

General feeling seems to be that the general price structure is in no immediate danger of a breakdown. In fact, the sentiment here generally toward the refinery market on the part of sellers is one of moderate optimism. It is recognized here, though, that much depends on the extent to which there is a curtailment in supply, as represented by refinery runs, in the coming weeks.

Gasoline consumption has at last responded sharply to weather conditions and, in the central states at least, is quite plainly much below levels of a month or two ago. Indications here are that refiners are alive to the situation and are now making substantial cut-backs in their operating levels, with perhaps more cuts to come later. Much interest attaches to the meetings of major company representatives here this week in their discussion of general market conditions.

Tank wagon and service station markets now seem to have stopped their spotty declines, with one or two indications of improvement, in this part of the country.

Kerosene has been a little irregular and apparently a little easier lately, with no pronounced movement either way.

Lubricants are decidedly strong, with fair buying.

Rocky Mountain Runs

Production estimates for week ended November 30:

MONTANA	
Buckley-Border	140
Cat Creek	740
Cut Bank	7,330
Kevin-Sunburst	3,720
Lake Basin	50
Pondera	1,090
Total Montana	13,070
WYOMING	
Salt Creek	16,960
Big Muddy	1,550
Badger Basin	40
Black Mountain	70
Byron	500
Dallas Derby	560
Dutton Creek	80
Elk Basin	50
Ferris	30
Frannie	300
Garland	800
Grass Creek	2,270
Hamilton dome	1,140
Hudson	290
LaBarge	1,320
Lance Creek	1,940
Lost Soldier	1,200
Mule Creek	Shut in
Midway	50
Notches	Shut in
Oregon Basin	4,020
Osage	640
Pilot Butte	30
Rex Lake	Shut in
Rock River	1,710
South Casper	410
Poison Spider	200
Teapot	20
Waugh Dome	100
Total Wyoming	36,300
COLORADO	
Florence	170
Fort Collins and Wellington	380
Iles Dome	2,880
Moffatt	430
Orchard	50
Rangely	70
Tow Creek	180
Total Colorado	4,160
NEW MEXICO	
Artesia	630
Cooper	8,970
Eunice	10,500
Hobbs	28,590
Hogback	200
Hospah	Shut in
Jal	3,670
Lea	1,160
Maljamar	1,550
Monument	1,640
Rattlesnake	890
Table Mesa	90
Total New Mexico	57,890
Total Rocky Mountain region	111,420

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